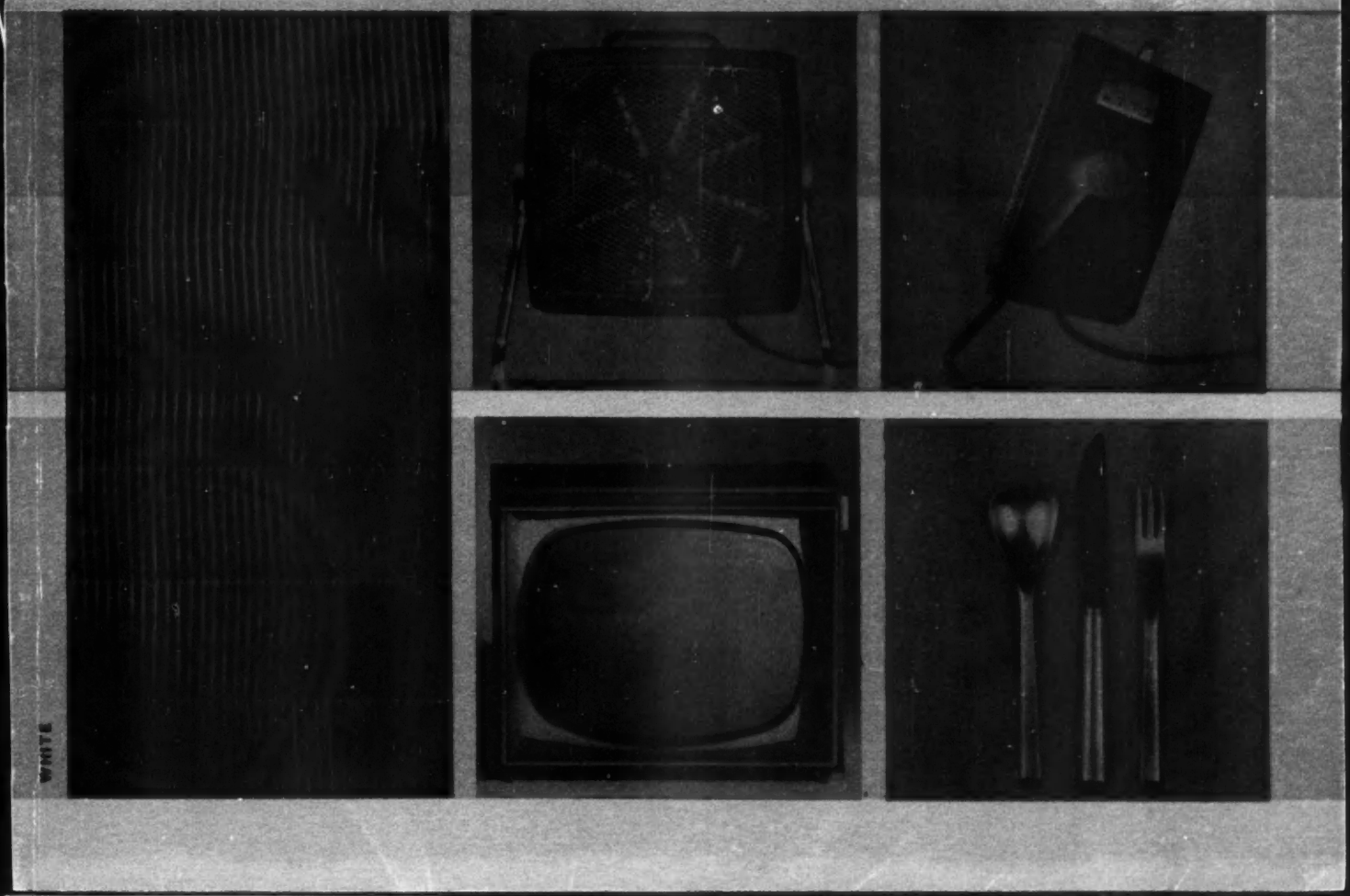
Design

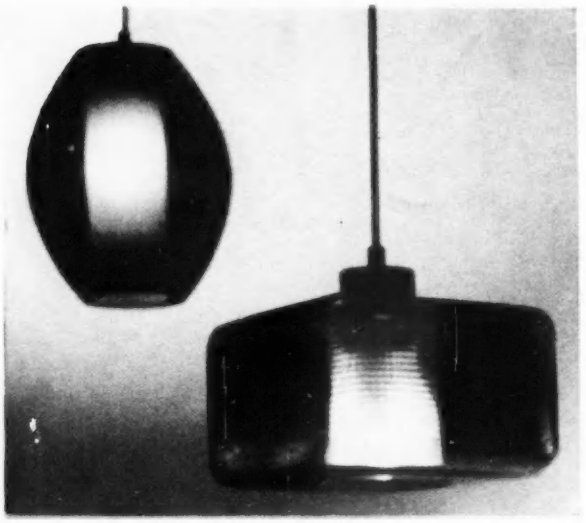
Council of Industrial Design 142 October 1960 Price 3s



SUPERB

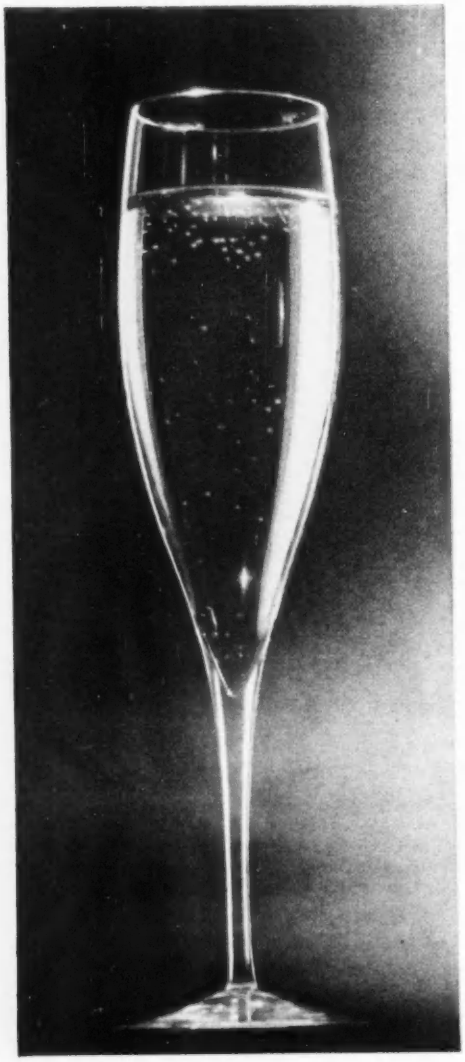
HAND-MADE

SWEDISH GLASS



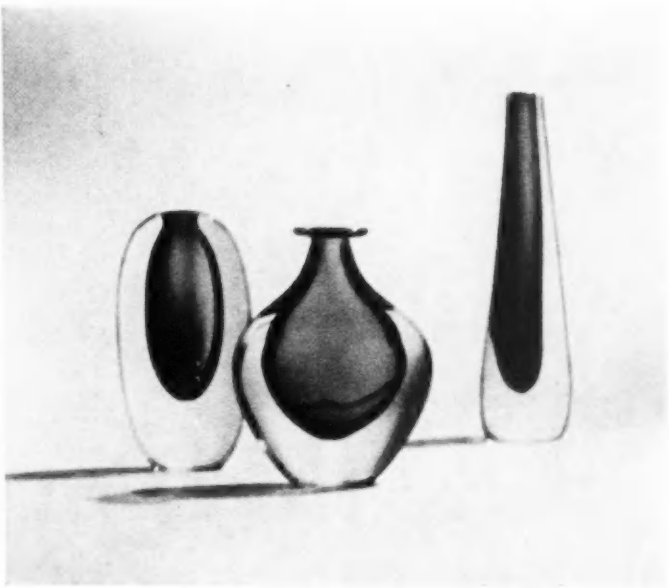
Light Fittings

Table Glass



ORREFORS

Vases



Sole agents in the United Kingdom : J. WUIDART & CO. LTD., 15 Rathbone Place, London, W.1.

ANCESTORS OF AN INDUSTRY

SIR ISAAC NEWTON'S famous observation of the falling apple reputedly started the speculations that led him to his theory of universal gravitation. The apple-tree was at Woolsthorpe, where he had retired when the Plague reached Cambridge; it was here, also, that he first evolved what we now know as differential calculus and, in his own words, "had the Theory of Colours". He had discovered that the sun's light is split up into its constituent colours by a prism — a discovery that provides the basis of chemical and astronomical spectroscopy. Newton was, too, a thorough-going atomist — that is, he believed that all matter was composed of tiny indestructible particles. He assumed that there were forces acting between the particles, these inter-actions enabling him not only to provide a theoretical explanation of Boyle's Law but also to understand chemical reactions. Newton's ability to use the concepts of atomism in a precise, mathematical way did much to excite the scientific interest that culminated, a century later, in Dalton's statement of his atomic theory.

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See the superb range of Shildon Carpets and Rugs at the SHILDON Bri-Nylon Carpet Centre
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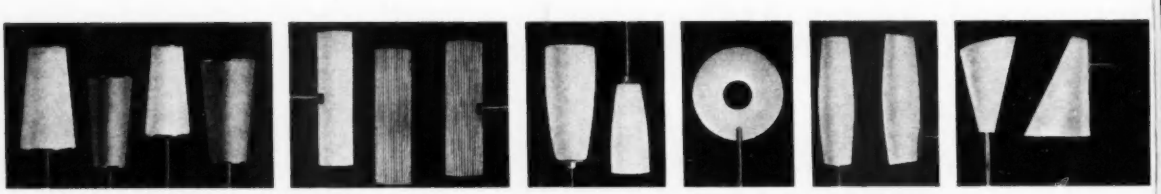
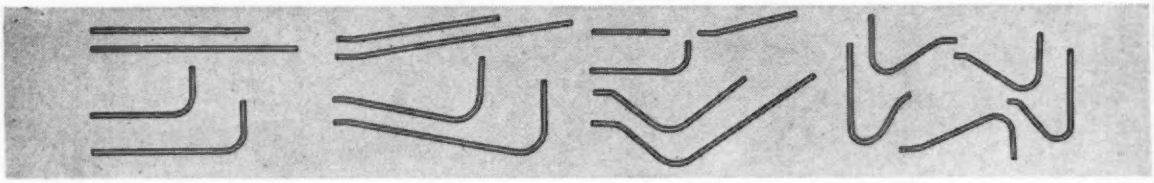
a small range of components that make up

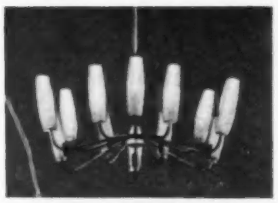


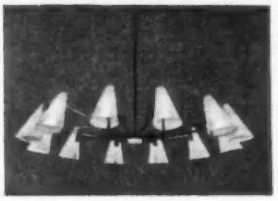
The six types of attachments. Each attachment consists of diffuser, carrier and lamp holder assembly



Types of arms available for use with pendant and ceiling fittings

a selection from hundreds of possible arrangements





into hundreds of different designs

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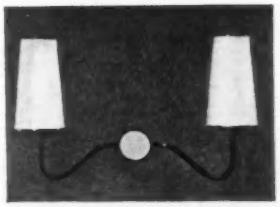
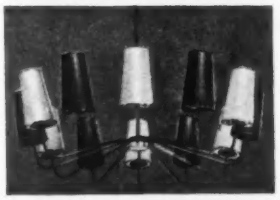
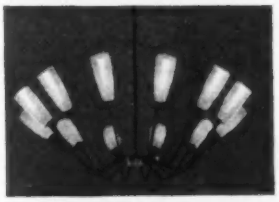
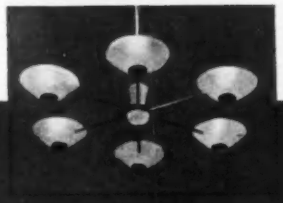




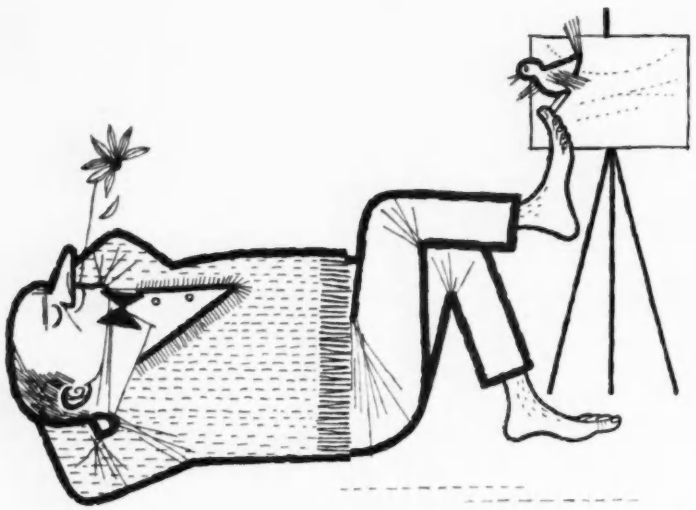


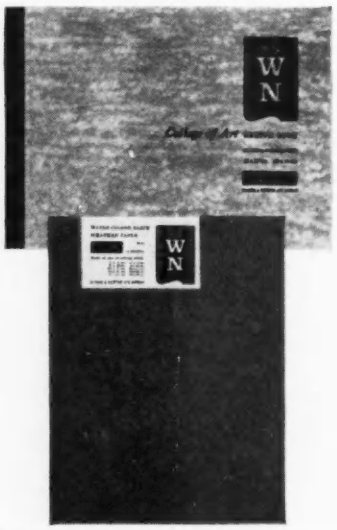


FORM INTERCHANGEABLE LIGHTING UNITS

The General Electric Co. Ltd., Kingsway, London, W.C.2

G.E.C.
LIGHTING DIVISION





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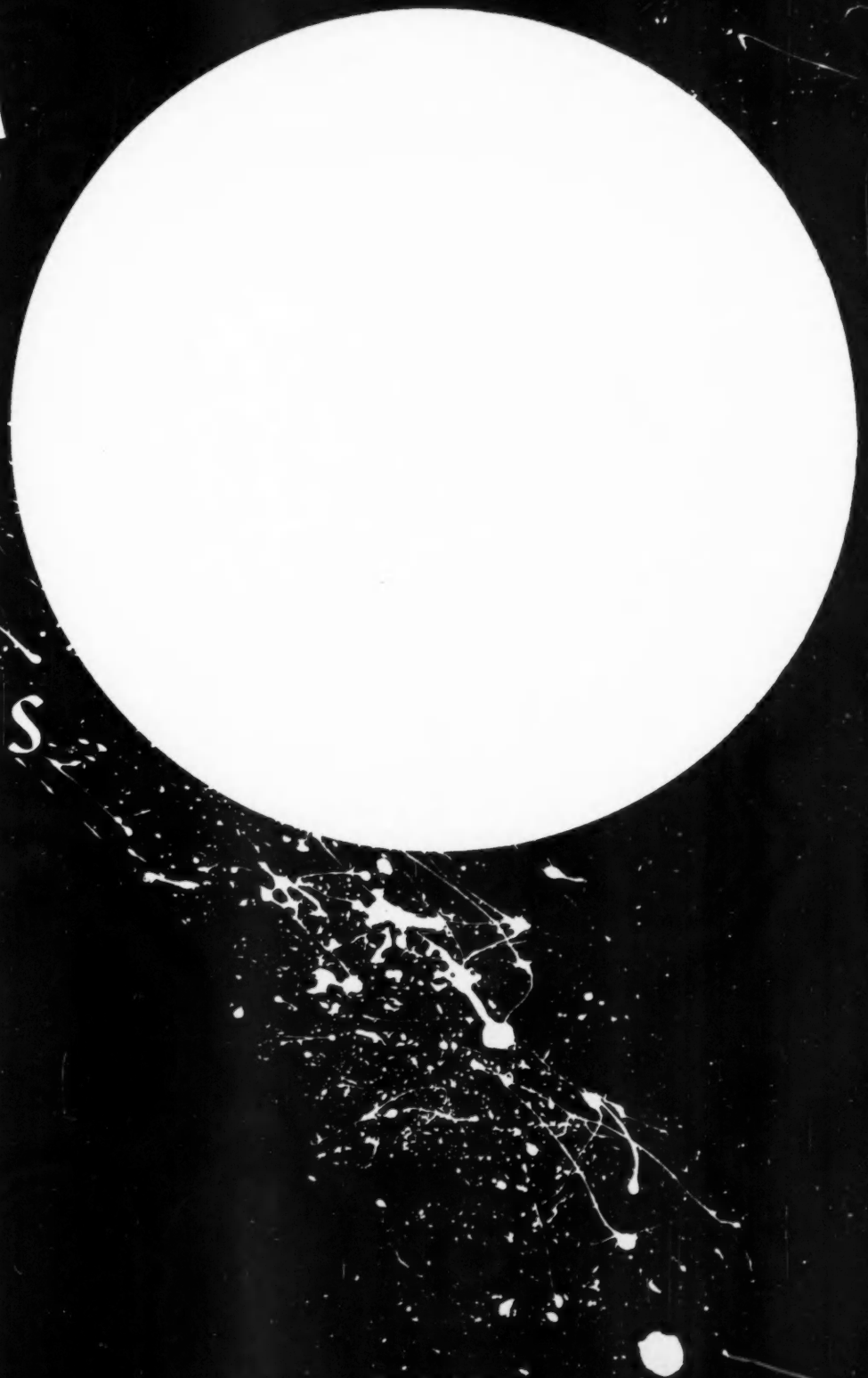

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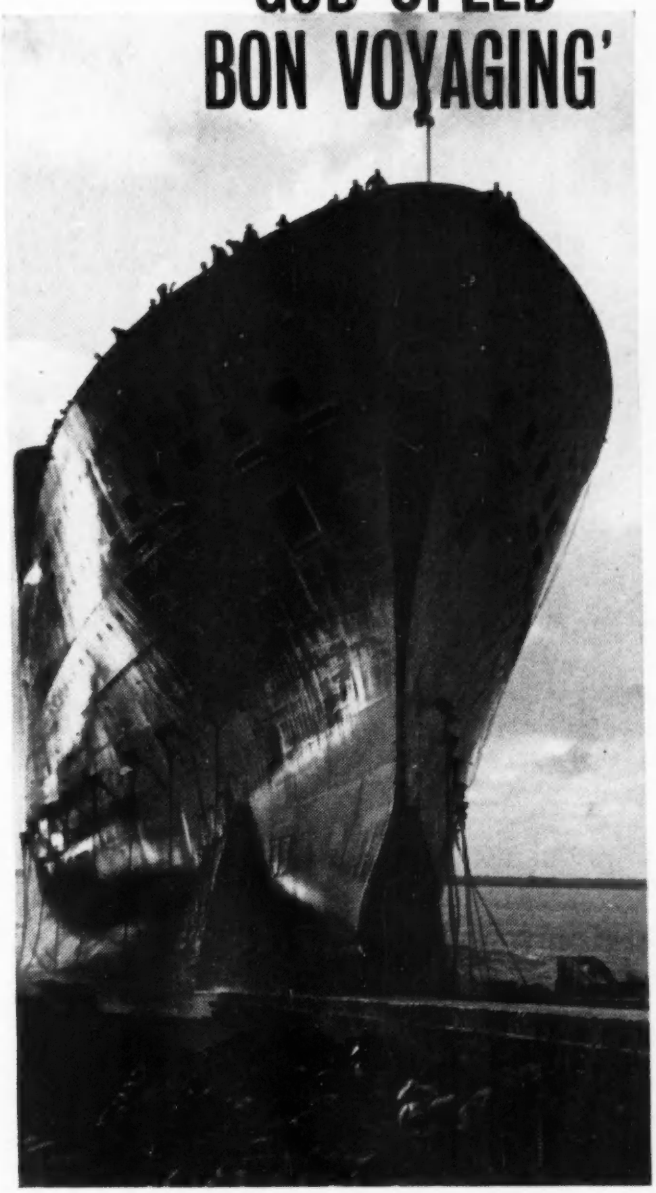

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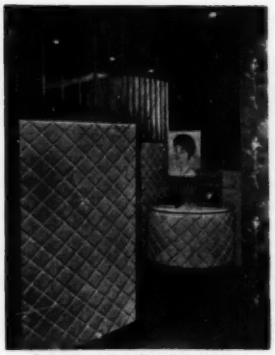

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The foyer, State Ballroom, Kilburn (By courtesy of C.M.A. Ltd).

Ballroom entrance, State Cinema, Kilburn (By courtesy of C.M.A. Ltd).

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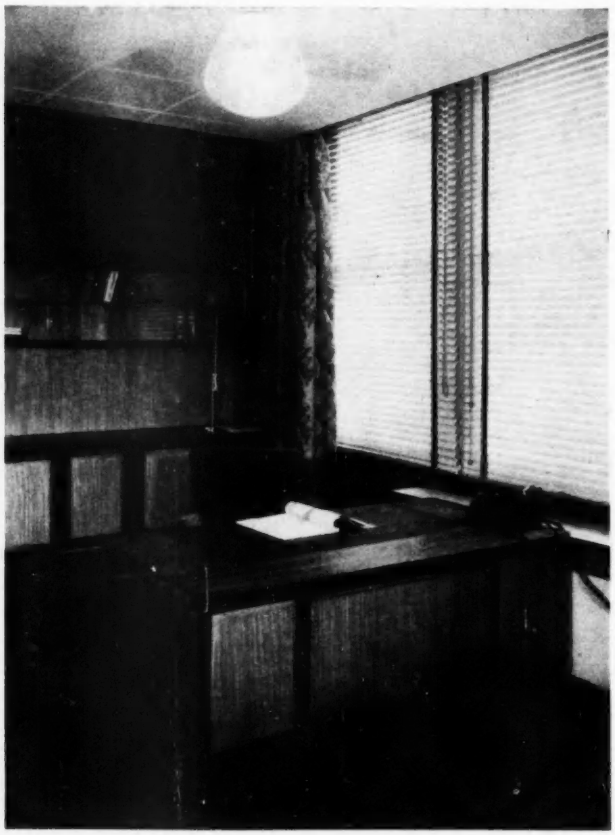

This month we illustrate four items taken from a complete office suite carried out by us at Finsbury Square. The desk has an interesting panel treatment, very appropriate for the modern office. The extra-comfortable chairs are available in leather or in many varieties of fabric.
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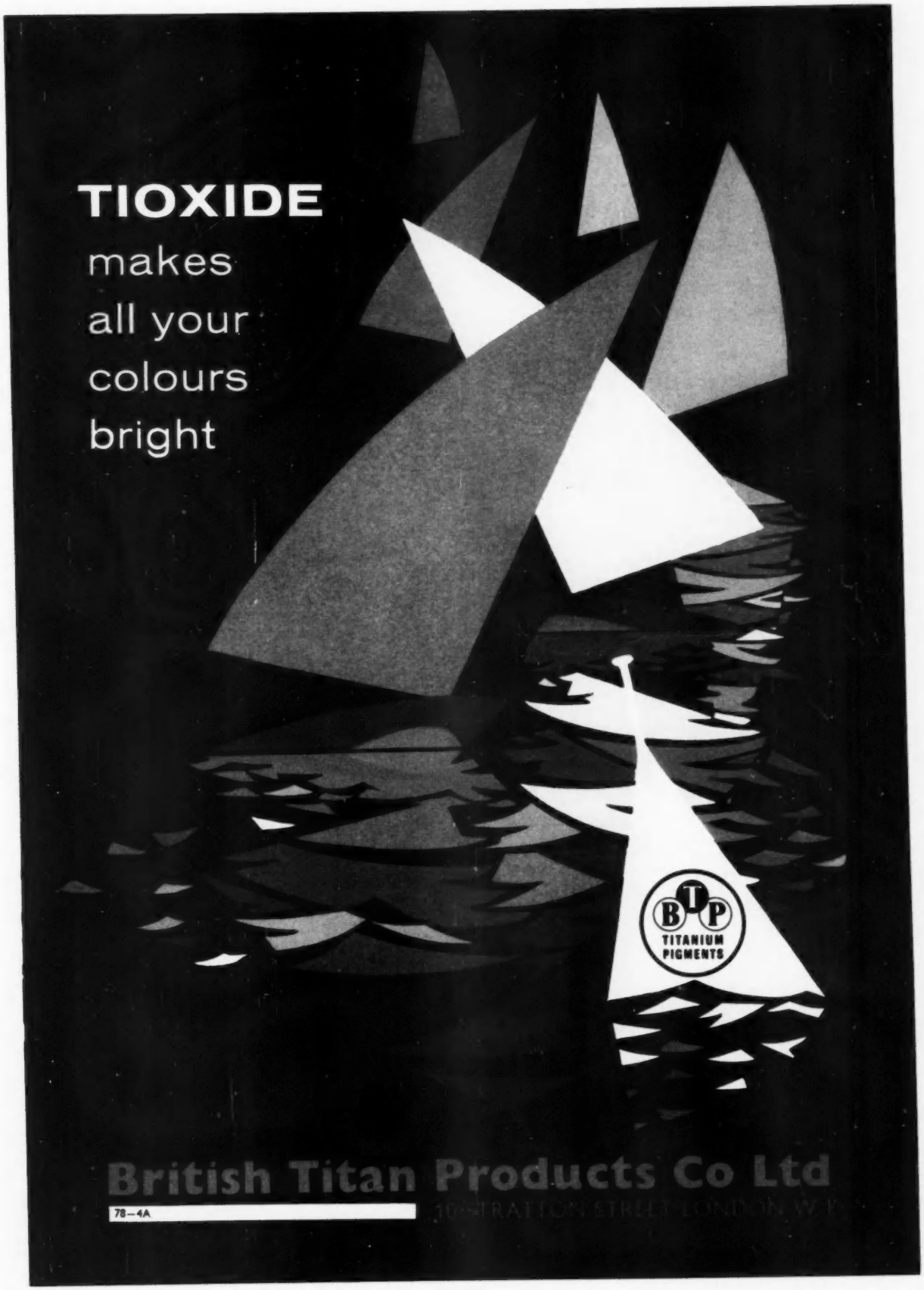
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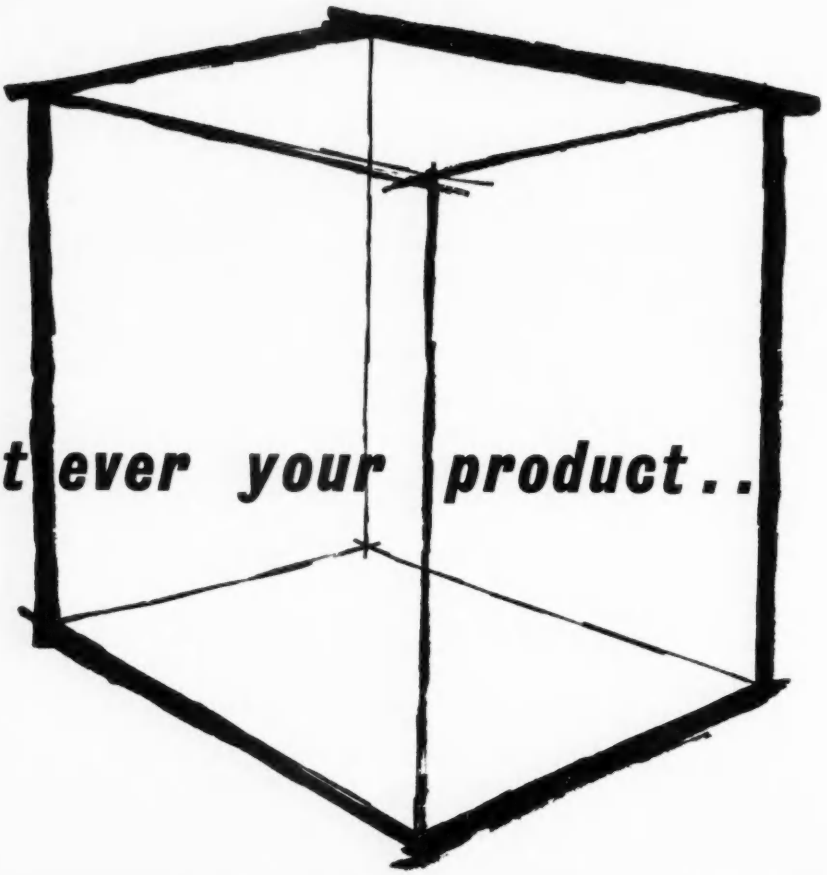

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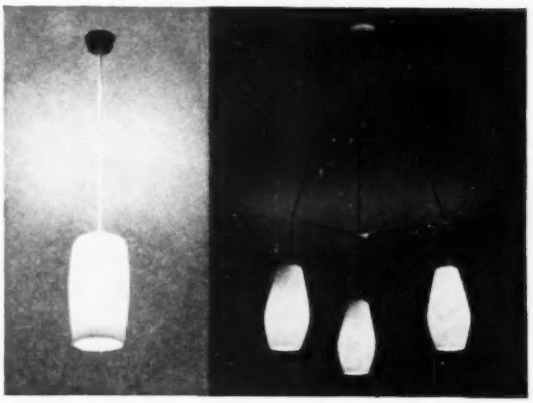
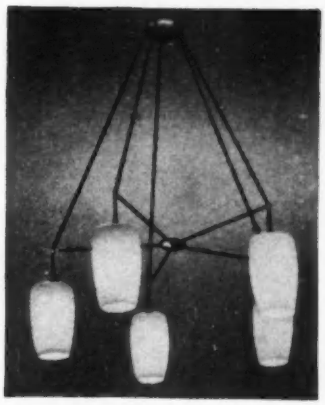


Satina



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Winner of a Design Centre Award, the Satina range of fittings is already one of the most popular in the country. The attractiveness of the satin-finished opal glassware, the delicacy of the bracket arms, and the general elegance of the range in all sizes are the result of close collaboration between the company's design staff and leading industrial design consultants. *For full particulars write for the illustrated Satina catalogue to:*

AEI LAMP AND LIGHTING CO LTD Melton Road Leicester

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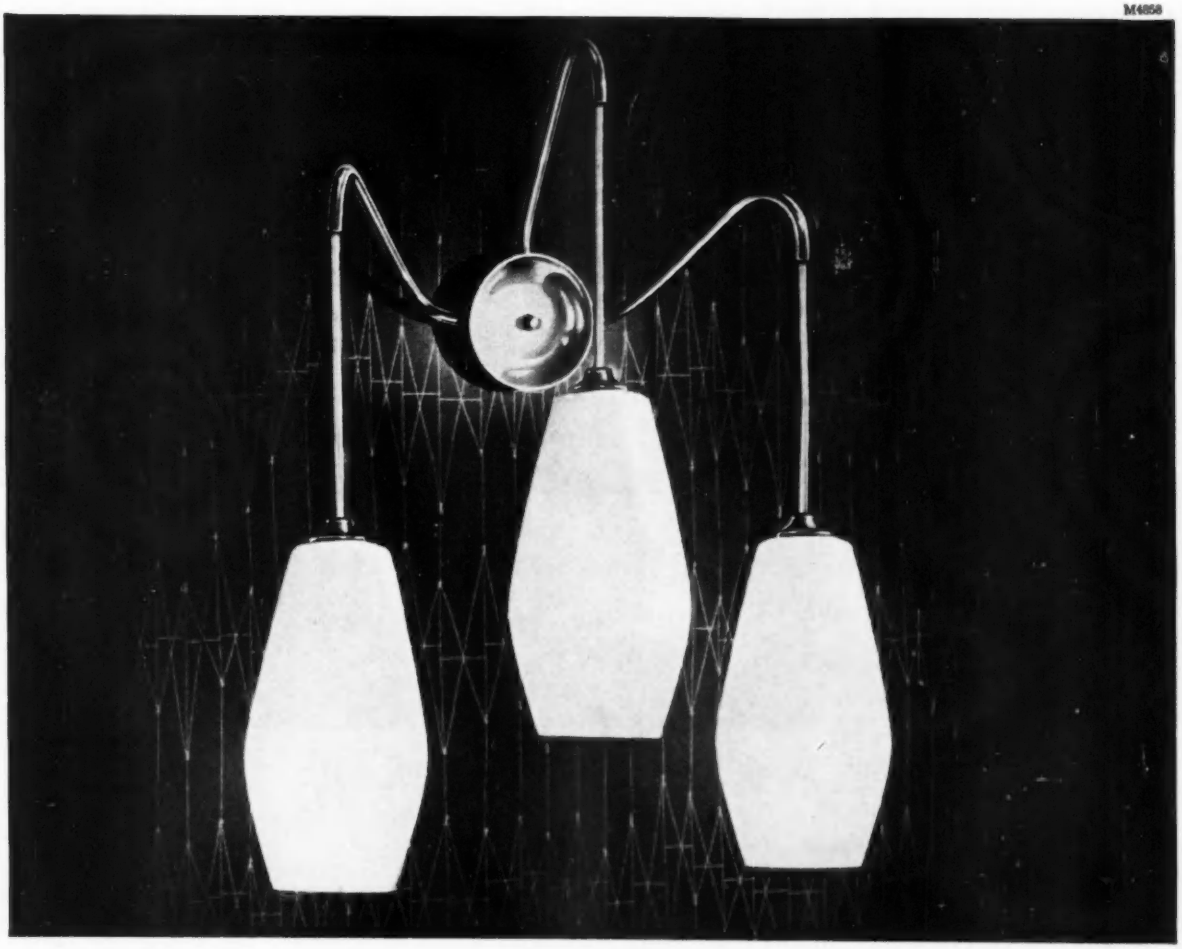

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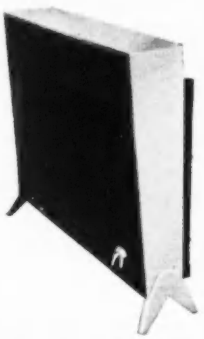
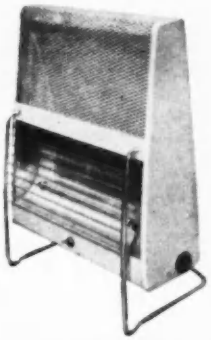
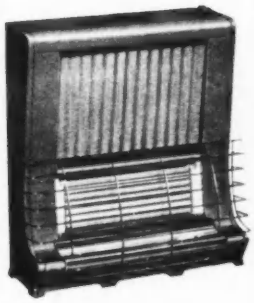
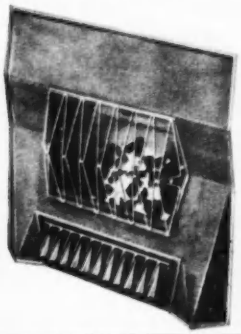
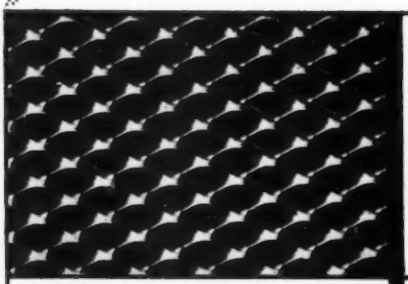




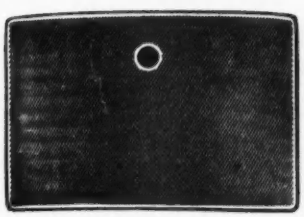




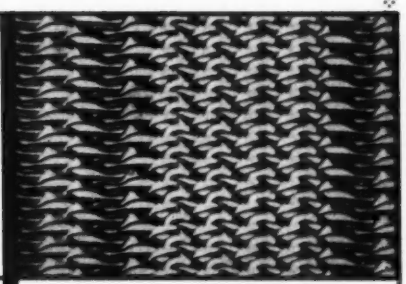
you'll see more manufacturers of heating appliances use Expanded Metal than any other alternative grill... and for many good reasons . . .



BETTER CONDUCTION
Expanded Metal, completely jointless, in steel or aluminium conducts evenly — allows uniform airflow. Ridged or flattened, there's a mesh for every application.



FASTER PRODUCTION
Expanded Metal is easily prepunched and formed. Its introduction simplifies fabrication and speeds output. Special sizes can be cut and supplied in quantity.



WIDER CHOICE Expanded Metal offers the strength and economy of steel or the colours and patterns of anodised aluminium. It opens up new opportunities for styling and sales.

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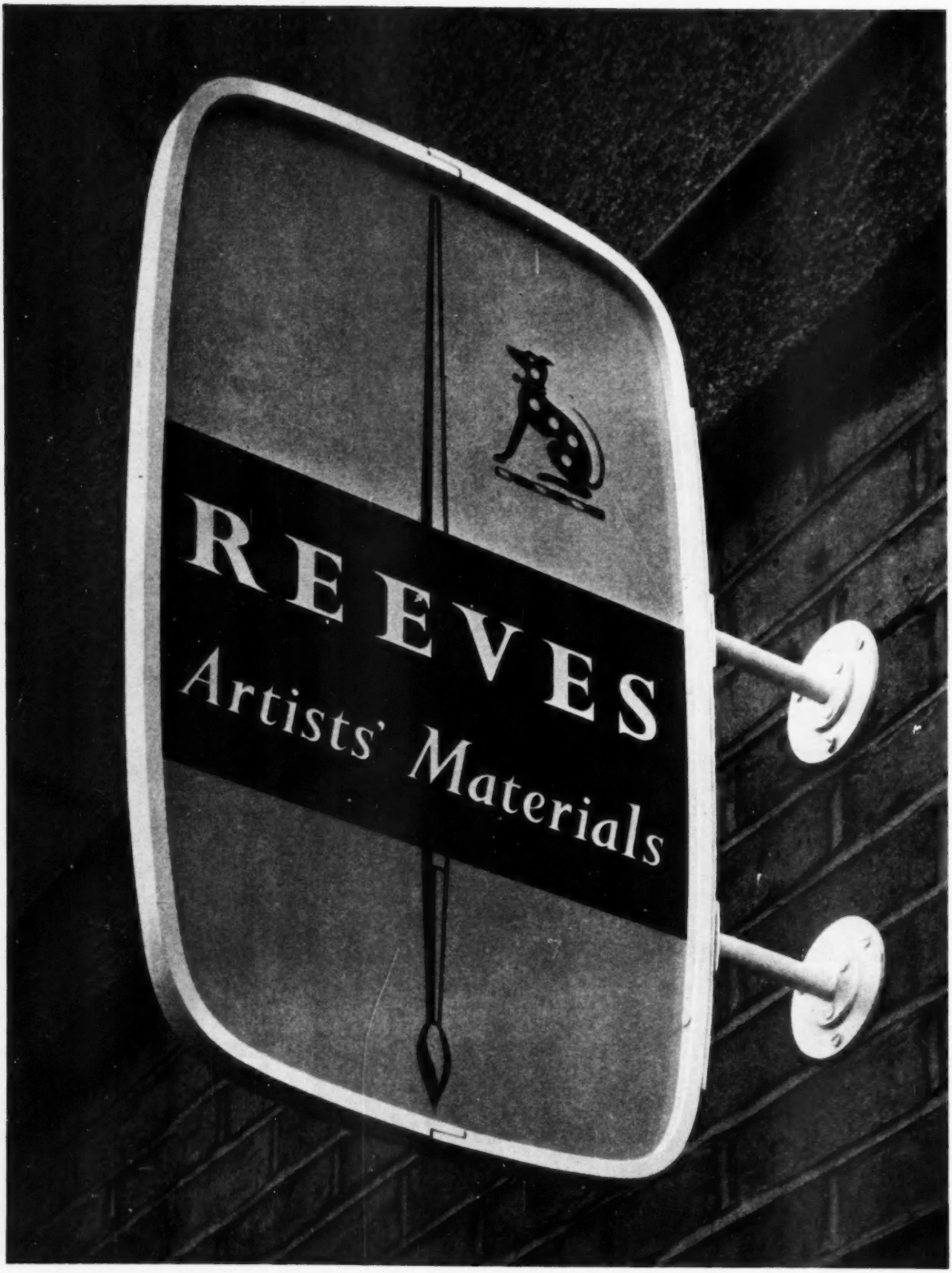
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and the Hostess...

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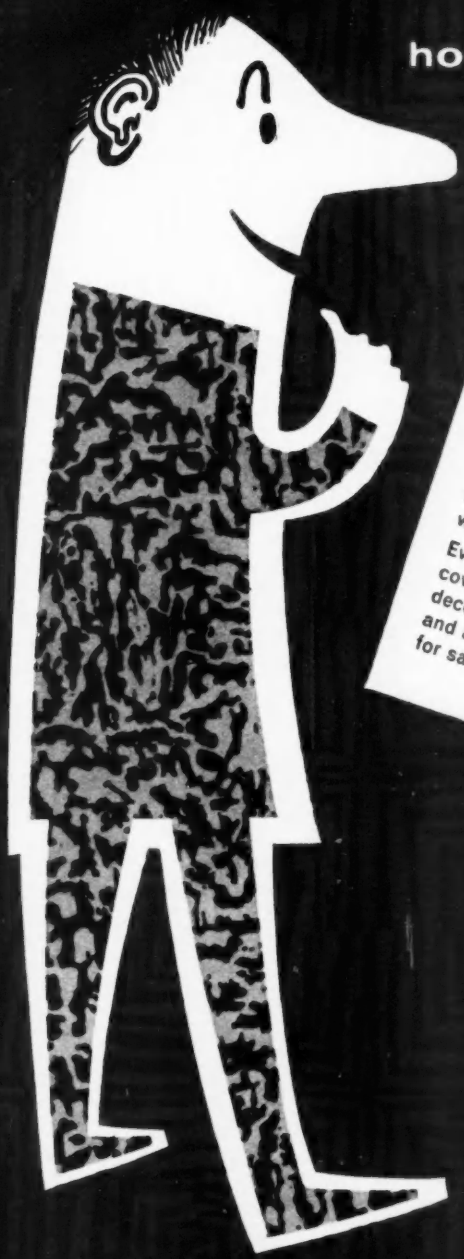

how is a design born?

There are no tools or materials for creating a design. You can't make an idea with a machine or turn out original designs on a production line. The only basics are a man's imagination, experience—and a certain indefinable something. And of course good designs are very hard to come by.

But we believe all the everflex vinyl coated fabrics designs are good. Just take a look at 'MAZE' and 'CAPRICE' illustrated here. They are outstanding. But *how* were these designs born? Only Edward Pond who designed them can tell you.

Everflex is widely used for upholstery, wall covering, case covering, interior decoration, on domestic appliances and a million other things. Write now for samples and details.

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RC21a

Signs made from 'Perspex'

stand out

The internally illuminated box letters on this sign at the G-Plan Gallery, in Hanover Square, London, W.1, are faced with 'Perspex' acrylic sheet and were made by Pearce Signs Limited, Insignia House, London, S.E.14, for E. Gomme Ltd., High Wycombe.

Internally illuminated box sign letters faced with 'Perspex' acrylic sheet, made by Pearce Signs Limited, Insignia House, London, S.E.14, for The Burma Gem Company, London.

THESE colourful illuminated box sign letters, made by Pearce Signs Ltd., show how 'Perspex' acrylic sheet can make even the simplest letter form catch the eye.

Pearce Signs make a complete range of signs with box letters faced with 'Perspex' in this way, two of which recently won the Gold Medal at the California State Fair.

Virtually any letter form or name-style can be easily shaped from 'Perspex' in an extremely wide range of colours and effects. They can be engraved or inlaid, will take printing very well and can be easily maintained. Since 'Perspex' is extremely durable, they will stand exposure to the weather.

To combine eye-catching design with durability, specify signs made from 'Perspex'.

·PERSPEX·

'Perspex' is the registered trade mark for the acrylic sheet manufactured by I.C.I.

IMPERIAL CHEMICAL INDUSTRIES LIMITED · LONDON · S.W.1

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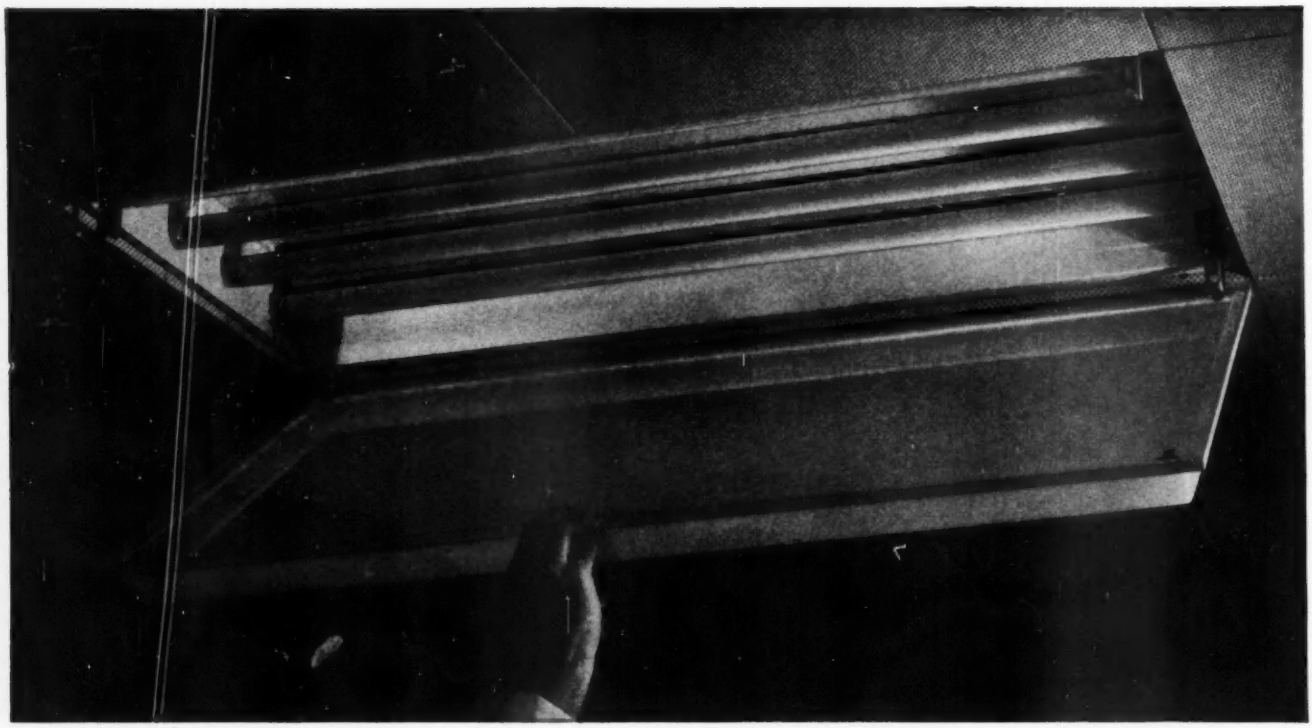
ALLOM HEFFER

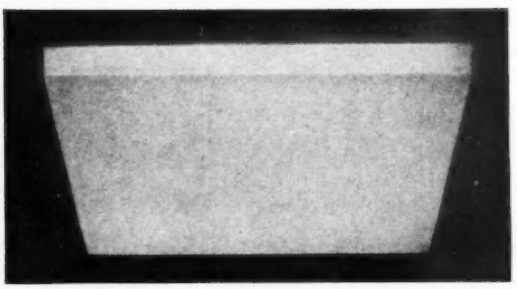
AND COMPANY LIMITED



The recessed fittings illustrated are made in various sizes and incorporates a completely new method of securing simple maintenance by means of the Allom Heffer patent locking device (Patent application No. 32933/59) which provides :

- A positive method of opening and shutting on a pull-push principle.
- Hinging on either side of the fitting when fully clear of the ceiling.
- Complete detachment of the diffuser when required.

Apply for Brochure series 707



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Our Technical Service Department will be pleased to give further information, as well as details of special machinery and adhesives for applying

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polymeric plasticised sheet for vacuum covering

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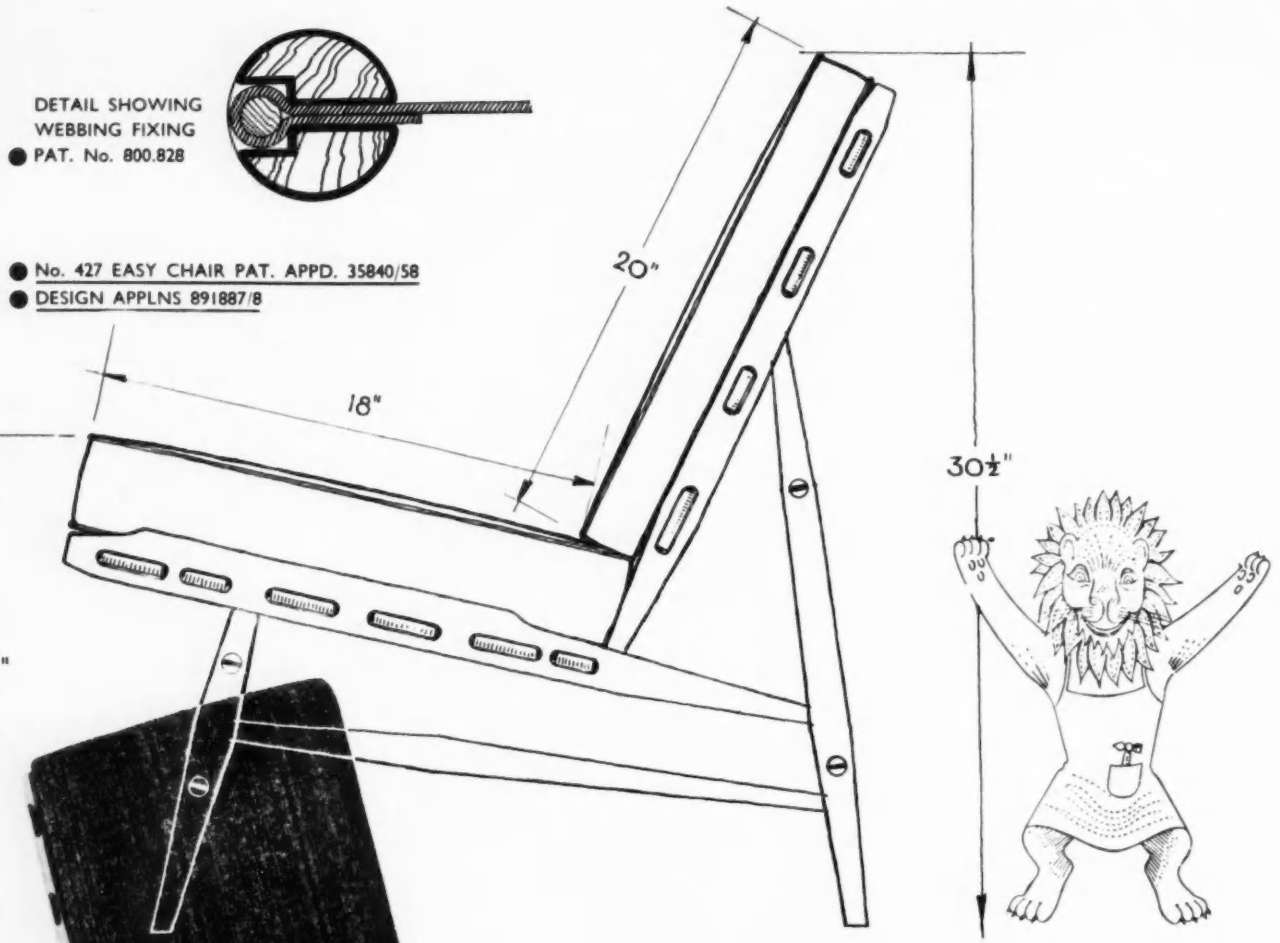
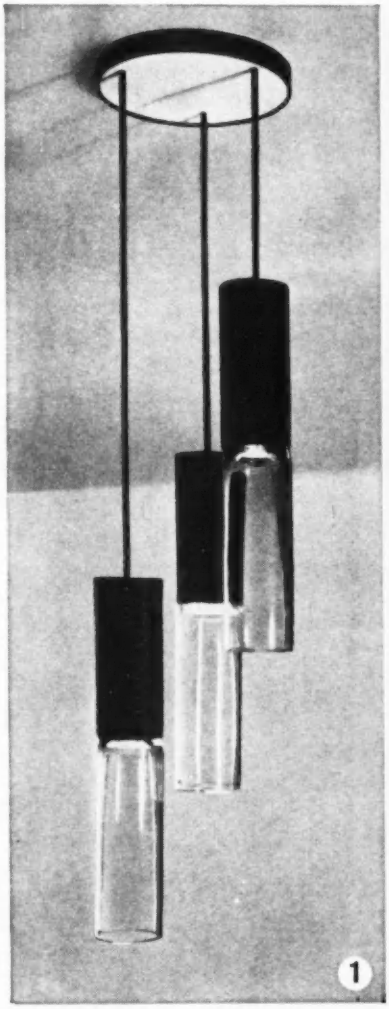


The ERCOLion on the anatomy of comfort

"Design for the comfort of the anatomy" began the ERCOLion, "is an amalgam of science and aesthetics. A marriage of form and information. A means of support without obtrusive supporting means. Take my new light but immensely strong Easy Chair. The entire sitting area of the seat and back is completely free of any cross rails. Just resilient rubber webbing (self anchored to the solid Beech frame), supporting deep foam cushions. A hammock-like haven which 'gives' to your body at every point. However you dispose your anatomy you are superbly comfortable as never before, because you are literally 'free-floating'. And as an additional practical comfort", concluded the ERCOLion, "I have provided zip-off cushion covers".

ERCOL Windsor contemporary furniture

ERCOL FURNITURE LTD · HIGH WYCOMBE · BUCKS



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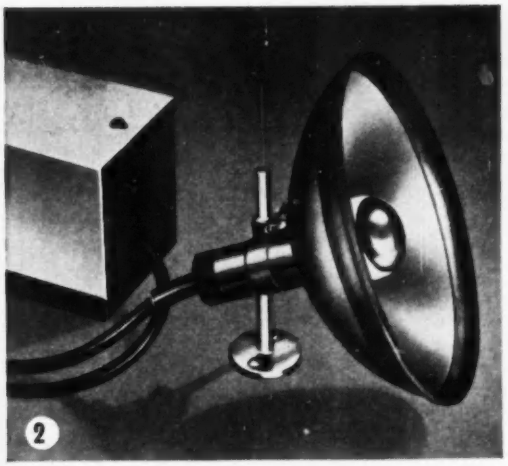
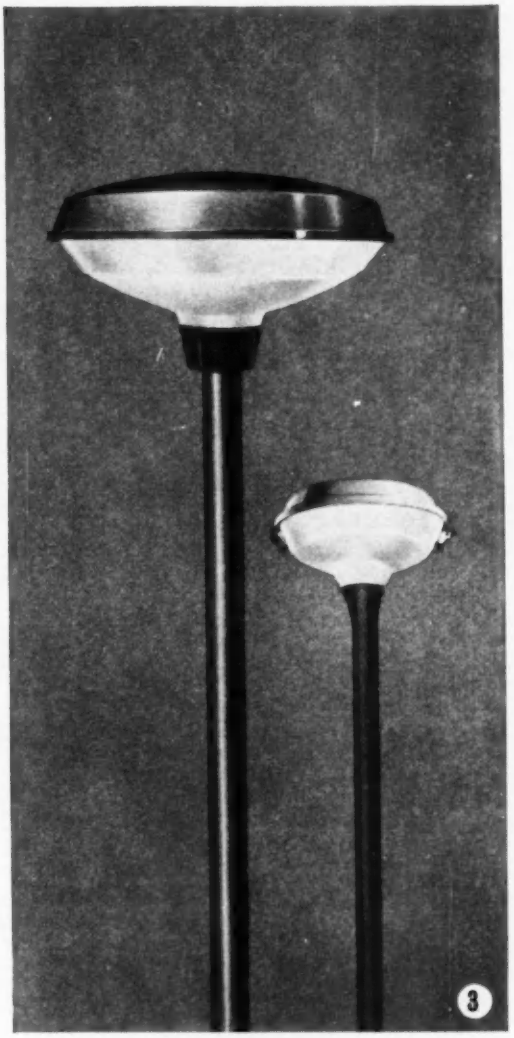




COUNCIL OF INDUSTRIAL DESIGN 1960 DESIGN AWARDS FOR ATLAS LIGHTING LIMITED

All the lighting fittings which this year won Design Centre Awards from the Council on Industrial Design are Atlas products. In addition Atlas Lighting Limited now becomes the first company to win three of these coveted awards in the same year.

This highlights the success of the Atlas design policy, which first gained 'official' recognition when the Atlas 'Kitchenlight' won similar distinction.

1. *'Chelsea' handwrought glass lighting fitting G.3 and J Y Glasses.*
2. *Low Voltage Display Lighting fitting DB.0050 with Transformer TR2338.*
3. *Street Lighting Lanterns and Columns. Models Gamma 4 and Gamma 5.*

ATLAS LIGHTING LIMITED
THORN HOUSE, UPPER ST. MARTIN'S LANE, LONDON, WC2.

atlas

DTV

stripes are in...

The glowing beauty of Rivington Living Colour in *stripes!* That's "The New Line" by Rivington, the entirely new range of striped carpets with the brilliant contemporary appeal. Rivington NEW LINE comes in rich two-tone colour schemes in glorious *Living Colours*. The beautiful striped pattern is the latest, most successful creation of the famous Rivington Design Panel.

"The New Line" by Rivington is as practical as it is lovely. It has all the hard-wearing qualities that make Rivington Carpets so ideal for contract work. It is mothproof, and has exclusive Permapad backing to increase stability and prevent slipping or stretching.

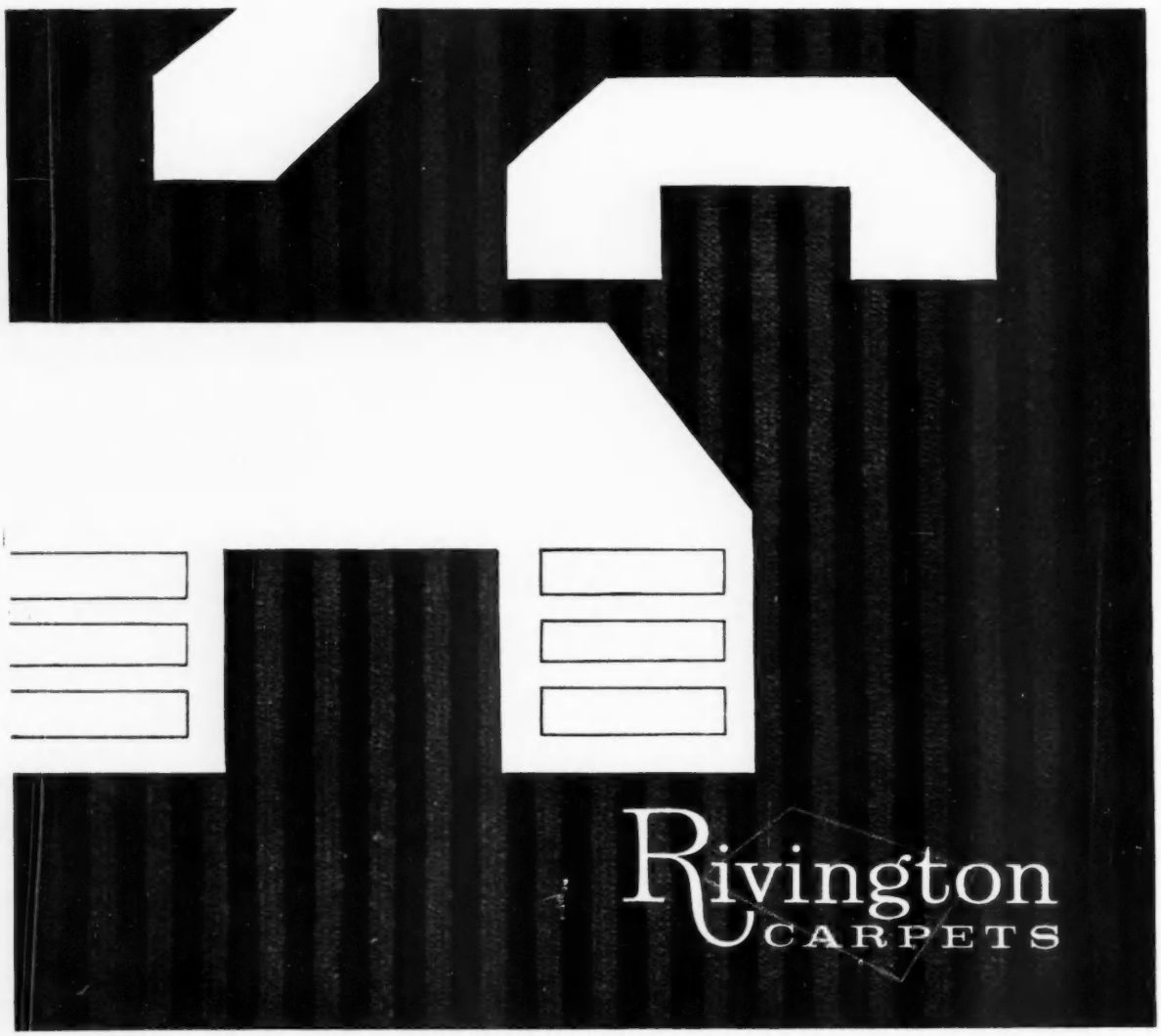
SEE THE RIVINGTON "NEW LINE" IN THESE LOVELY COLOURS

BURNT OAK ..... **Peat and black**
WOOD GREEN ... **Bay green and stone**
PARK ROYAL ..... **Monaco blue and Chinese turquoise**
BOND STREET .. **Chili red and cardinal red**
TEMPLE ..... **Grey mist and graphite**
ANGEL ..... **Grey mist and Persian Lilac**

85% VISCOSE RAYON AND 15% NYLON.

"The New Line" is available in all widths and retails at 59 6 per sq. yd.

in the NEW LINE by RIVINGTON



Write for full details and free samples of "The New Line" to:

RIVINGTON CARPETS LTD., London Office and Showrooms: 1 Clifford Street, Savile Row, W.1.

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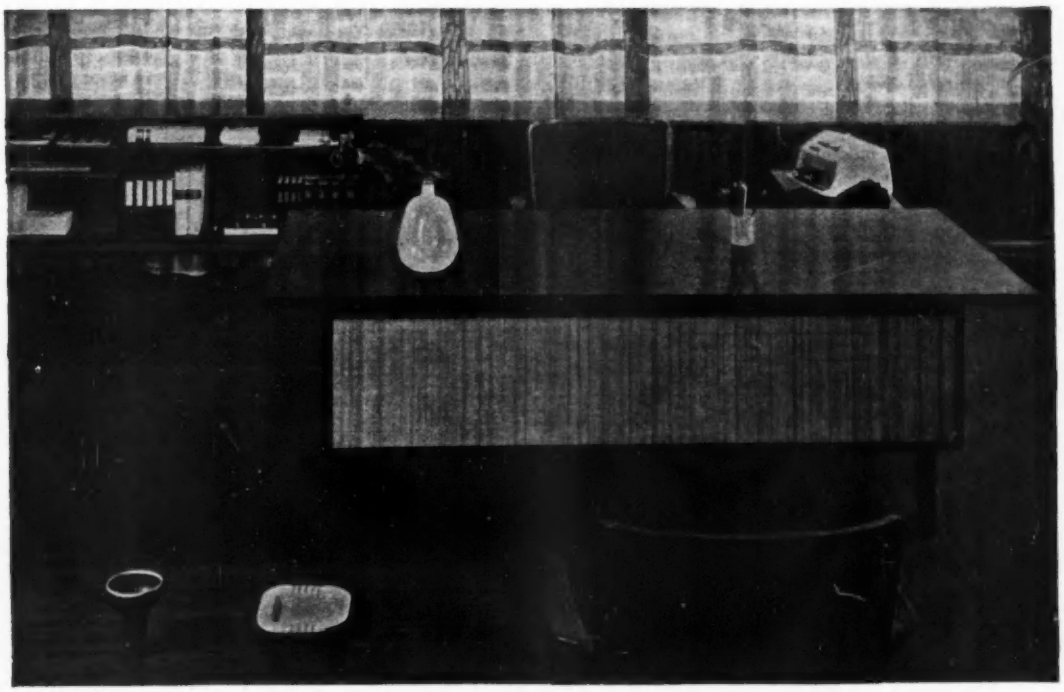
FACIT

SWEDISH FURNITURE

for Executive Offices



distinguished by the company it keeps...

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London Sales Office: 58-60, Kensington Church Street, London, W.8. Telephone: WESTern 7250 (10 lines)

in one working day!

Modernisation of a bar, restaurant, shop or office *all in one day?* And without disturbing staff or customers? That's what can be achieved by using HARDEC—*quickest fixing plastic surface*. The reason is this: HARDEC is a *balanced* board which lies flat by itself, needing only the simplest fixing.

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THAT'S THE TIME, LABOUR AND MONEY YOU SAVE WITH **Hardec**

Quickest-Fixing* Horizontal *or* Vertical *Plastic Surface

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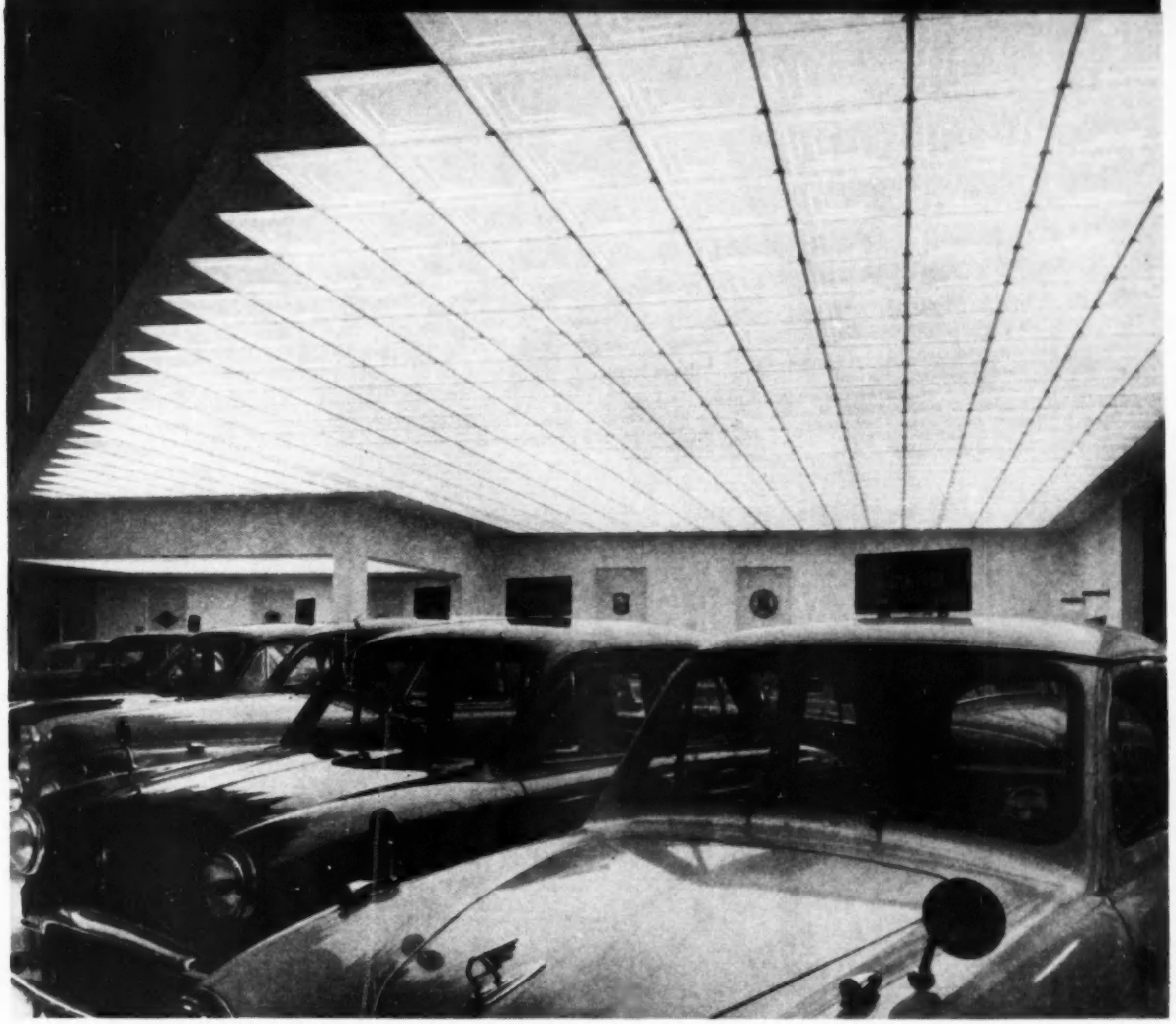
The ceiling that lights



A Lumenated Module installation in the showroom of Middlesex Motors, Stanmore. ARCHITECTS: *Tubbs, Duncan & Osborn,* A.R.I.B.A.

Lumenated Ceilings are precision made. They arrive on site ready for immediate erection — using a minimum of skilled labour. They are covered by a comprehensive guarantee and a full maintenance service is provided. Expert co-operation on design and installation can be given by our experienced staff. Most Lumenated Ceilings diffuser designs have been accepted by the Council of Industrial Design. Please write for full details.

A member of the Hall-Thermotank Group.

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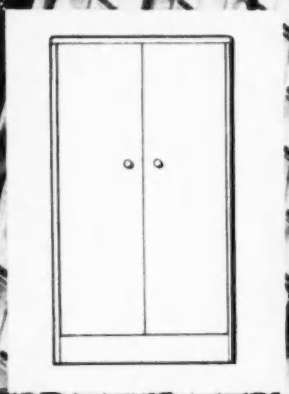
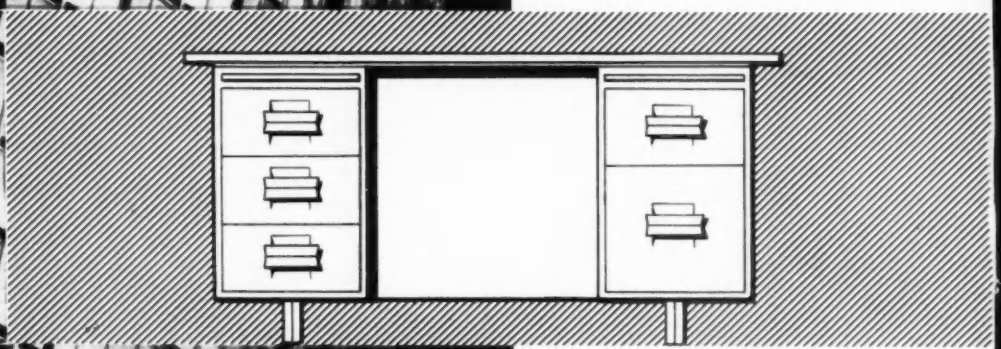
YGA 185

New for the sixties



The **VA 60** range is an entirely new concept in steel office furniture. Designed by Robert Gutmann, FSIA, this furniture complements the striking new offices now taking shape.

Desks, cabinets, book-cases —each piece is styled in smooth, flowing lines and immaculately finished in colours to harmonize with all decorative schemes. Prices? Surprisingly competitive.



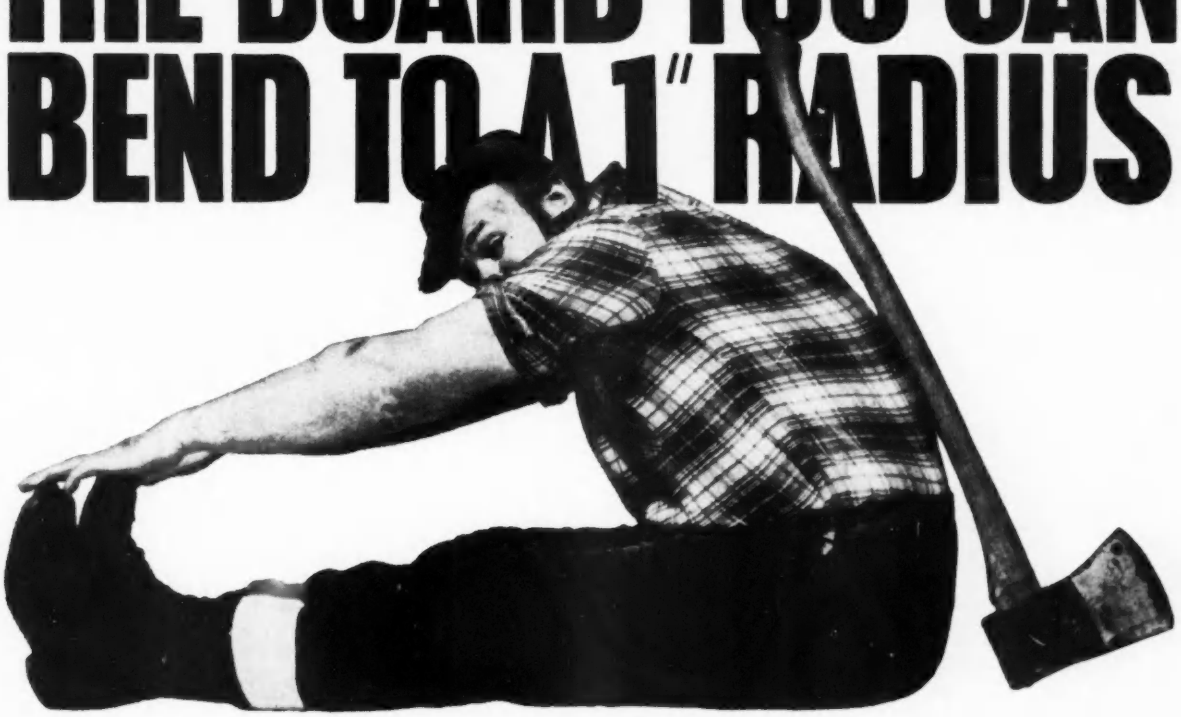
If you are contemplating the furnishing of new offices or are interested in bringing present offices up-to-date see the **VA 60** range before you make your final decision. An illustrated catalogue is yours for the asking.

STAND 150 Grand Hall Gallery Business Efficiency Exhibition

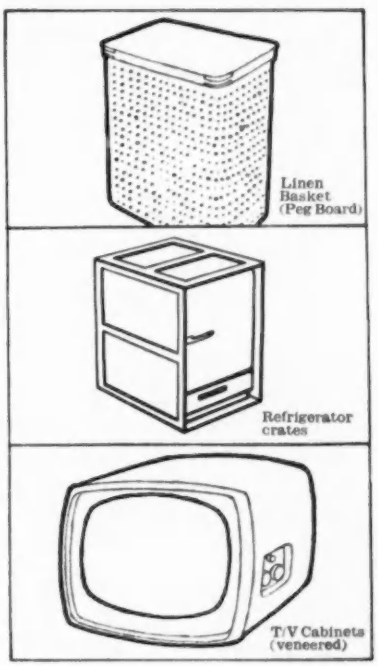
VICKERS **V-A SIXTY**

VICKERS-ARMSTRONGS (ENGINEERS) LIMITED
DARTFORD KENT *SALES OFFICE AND SHOWROOM* 13 CITY ROAD LONDON EC1 MET 8877/9

THE BOARD YOU CAN BEND TO A 1" RADIUS



Bowater Board will go all the way round to a 1" radius without tearing or losing its smooth working surface. This opens up all sorts of new uses, which industry has not been slow to grasp. Equally important is the way it blanks out to almost any shape without splitting or splintering. No wonder Bowater Board is taking the place of many traditional and often more expensive materials in products like the three we show here, for example. Did you know these other facts about Bowater Board? Wide range of decorative finishes. Many standard sizes (including economical 5 ft. widths) and practically any non-standard measurements cut for worthwhile orders. Home production ensures reliable delivery.



Like a booklet and some samples to start you thinking? Write to:

Imagine how you can use

Bowater Board

BUILDING PRODUCTS DIVISION, BOWATERS SALES COMPANY LIMITED,
BOWATER HOUSE, KNIGHTSBRIDGE, LONDON, SW1. TEL: KNI 7070

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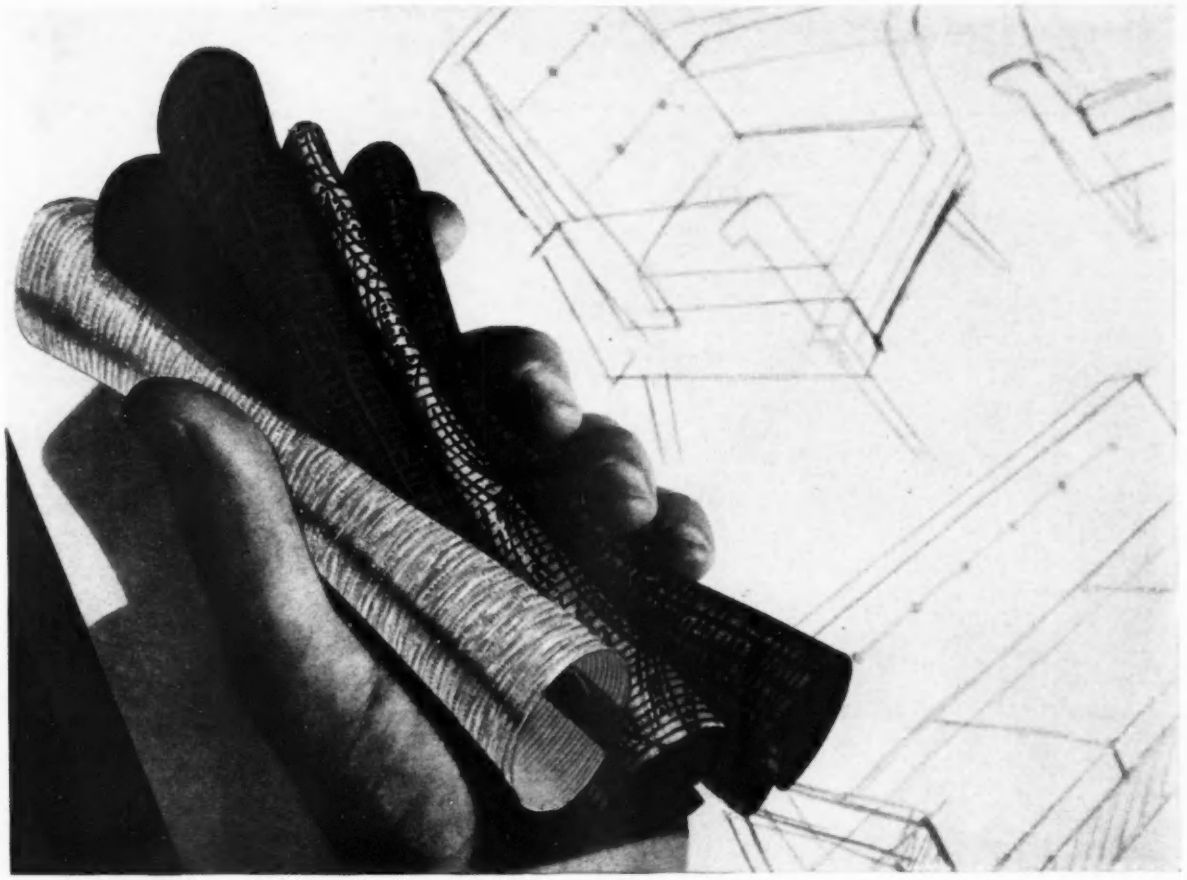
TROUGHTON & YOUNG (Lighting) LTD., The Lighting Centre, 143 Knightsbridge, London, S.W.1. *Tel. KENsington 3444.*

Architects: Ronald Ward & Partners

And at Rodney Street, LIVERPOOL 1.



'Vynair' brings you today's gayest colours

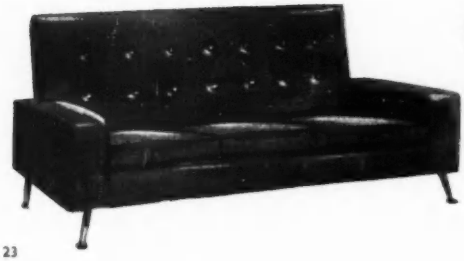
—*and it's so easy to care for*

This is 'Vynair' – the new upholstery material that combines today's gayest colours with a luxuriously comfortable texture that is really easy to care for.

The 'Vynair' texture is something completely new in coated fabrics – allowing air to pass freely through the material. It makes 'Vynair' supple enough to be thoroughly comfortable, yet resilient enough to keep its shape year after year.

Every wonderful 'Vynair' design and every vibrant 'Vynair' colour can be wiped clean with a damp cloth, and will withstand very heavy wear.

Already 'Vynair' is available in nine colours, and new designs are coming out all the time. More and more famous furniture makers are using it to add colour and comfort to their upholstery. If you like to keep up with what's newest, brightest and most comfortable in modern furniture, don't fail to go and see 'Vynair'.

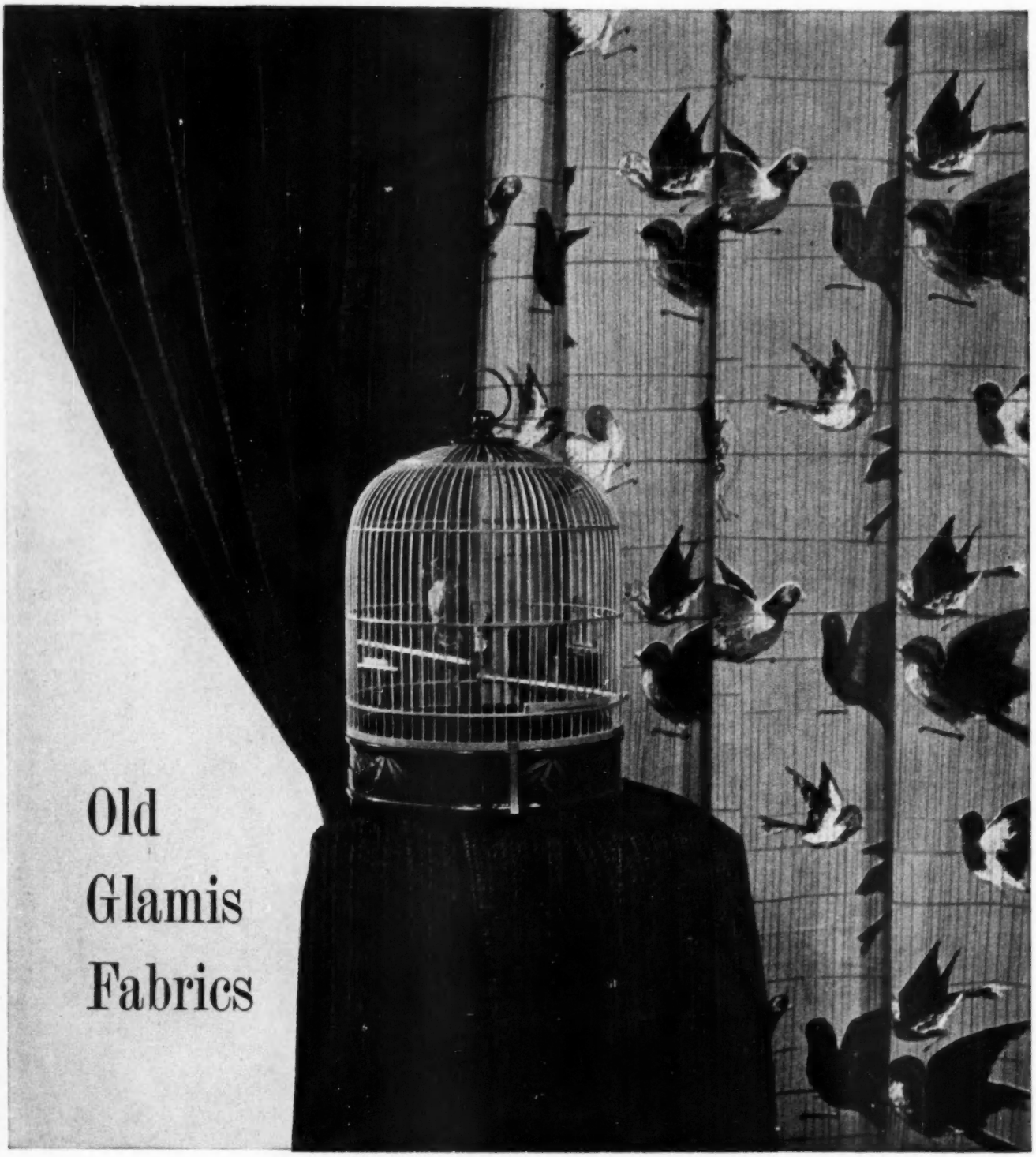


'Vynair' BY ICI

registered trade mark

VA 23

I.C.I. (HYDE) LIMITED, HYDE, CHESHIRE



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makers of Old Glamis furnishing and embroidery fabrics to
H.M. Queen Elizabeth The Queen Mother
Donald Bros. Ltd.

AVIARY, a recent addition to the Old Glamis family, is printed on a satin cotton in a choice of five colour combinations. Here it is teamed with MERKLAND, a heavy upholstery fabric made in ten colourings. Ask to see the pattern books of the Old Glamis range at your local furnishing store or visit the Old Glamis showrooms in London or Dundee. You will be a welcome visitor.

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142 October 1960

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DESIGN's American correspondent reports her impression of the *British Exhibition* held recently in New York's Coliseum

Belgium: Centre lathe redesigned *William H. Mayall*
A machine tool of unusually advanced design is described and illustrated

USA: Decade of Aspen
Two articles mark the tenth anniversary of the annual international design conferences at Aspen. The first, by Herbert Pinzke, is a retrospective account describing how the conferences have developed. The second, by Paul Reilly, discusses this year's conference

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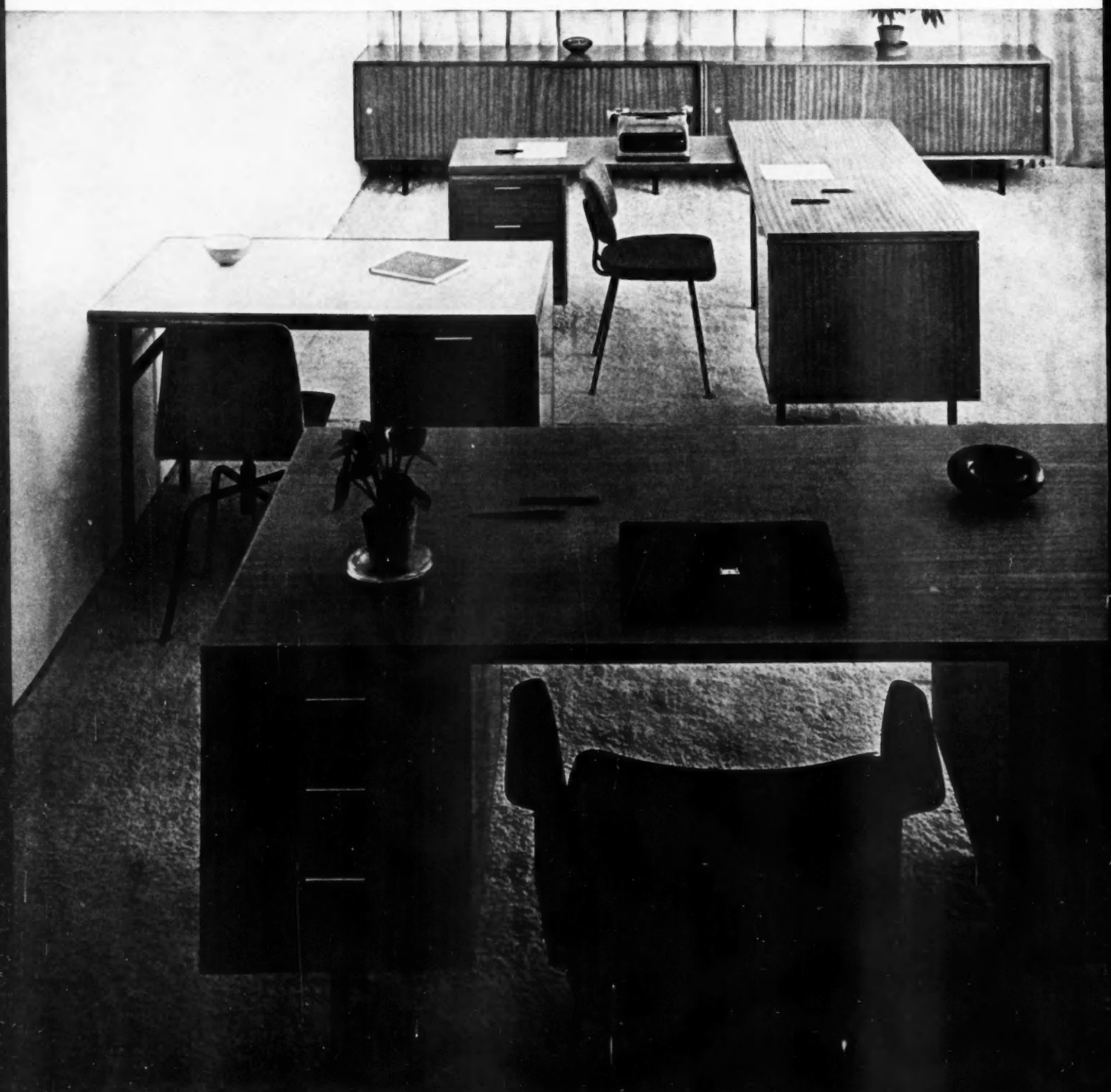

Tradition and experiment

What, in a nutshell, are bodies such as the Council of Industrial Design and the Design and Industries Association trying to do? Surely to encourage in the present generation of British manufacturers and designers that same marriage of imagination and commonsense which won for our ancestors their great reputations for good design; but equally surely not to encourage faithful or, still less, faithless copies of past successes, however fine these were in their time and however much they may still be in demand. There are after all plenty of people doing the latter, but all too few doing the former, and, though it is clear that a great many of our overseas customers still look to Britain for traditional designs, there is everywhere a substantial market for something fresher, more up-to-date and better suited to modern living. Britain should be actively competing for her share of this rising demand.

That is why The Design Centre in Haymarket, London, concentrates on good modern design and why time and again reproductions are not accepted – even though it must be admitted that the originals on which the copies are based may have been intrinsically better designs than much present day work. The Design Centre's search for good, modern, imaginative designs is not yet fully understood in some industries, particularly not perhaps in those with old traditions such as pottery and glass. A rejection of a traditional design does not necessarily imply that it is a bad one, but simply that it is inappropriate to an exhibition that purports to show the more modern face of British industry.

Had British manufacturers in general spent more on design research over the last 20 years, The Design Centre would today have more good modern things to choose from, but manufacturers could well retort that no one has pressed them for any new departures. Their public has been well satisfied with the traditional bread and butter of their trades.

It is for this reason that we welcome the publication in this issue of the report on a brave experiment in modern design by a merchant bank in the City of London. Such patronage from so sober and careful a quarter should go far to convince our most conservative industrialists that there is perhaps something worth pursuing in the idea of designing for one's own times. It may also convince them that the modern designer can cater for luxury as effectively as he can for economy. It has been the dearth of such generous commissions that has up till now played into the hands of our ancestors.

P.R.

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To and fro at Milan

It was indeed pleasant to hear warm praise for the British three-class primary school at the *Triennale* from Italian and other visitors to the exhibition. More than any other national exhibit this self-contained building carried at least half of the exhibition's theme *Home and School* into practice. As already reported (DESIGN 139/63) credit for the enterprise belongs to the Ministry of Education and the Nottinghamshire County Council; that the British '*Home*' was wholly absent is hardly their fault. Respect abroad for British achievements in school design has brought a more practical outcome, for Western Germany is to build a number of schools to British designs using the same system of construction as that used in the school shown in Milan.

One of the surprises of the *Triennale* is the extent to which the backward looking trend in Italian furniture design has taken hold. Our suspicions – aroused in the pages of *Domus* – were partly confirmed by the contrived peasant style of Gio Ponti's furniture at the Heal's exhibition earlier this year (DESIGN 140/58). Now many leading Italian designers are in full retreat with elements of Cubist-modern and even de Stijl mixed with an approach that is decidedly Kitsch. We shall be showing some examples in DESIGN for December; but in the meantime we strongly recommend the *Triennale*, in spite of this.

There are displays from 14 other nations which variously take up the main theme, often showing *Homes* and *Schools* significantly mixed. But well to the fore come the commercially adroit designs from Germany, Japan, Czechoslovakia and Scandinavia that should make British firms with a lively design policy regret their own absence.

Startling report

A disturbing, though understandable, growth of the 'beat' outlook among art students was clearly evident in a recent issue of *Ark* magazine which was discussed on this page in July. The point is taken up by Robin Darwin, principal of the Royal College of Art, in the latest annual report of the college. His comments on the present student generation reveal a perceptive and sympathetic understanding of the dilemma facing the young – the "managerial revolution which offers the possibility of material welfare and mass extinction with equal generosity". For something as dull-sounding as an annual report this makes extraordinarily interesting reading – as do other sections of the report which describe the objectives and problems of this national college. But perhaps most startling is the report's presentation. The old pocket sized utility production has given way to a handsome quarto booklet with immaculate typography and a collection of full page photographs which say almost more than the words themselves. Unfortunately the report is not for sale, but if you can get hold of one from the friend of a friend who knows the wife . . . the effort will be well worth while.

Boost to morale

Do the *Design Centre Awards* really benefit the manufacturers of the products that win them? The answer is emphatically 'Yes' as far as the 1959 awards were concerned, anyway. We can state this with such shameless confidence because of an enterprising survey carried out independently by *The Director* (that thick magazine strictly for top people in industry and commerce) and reported in its July issue. Fourteen out of 16 manufacturers claimed that the receipt of an award had definitely stimulated sales for the particular product concerned. Of the remaining two, one said the firm had gained status and the other that the award had drawn attention to the firm's products as a whole. Perhaps the most interesting remark was from Ernest Race Ltd which won an award with the firm's *Heron* chair. The greatest benefit apparently was the boost to factory morale. "Everyone (the managing director included) felt very good and this promotes better quality work from all hands."

Picture quiz

Guess what this picture shows. A luxury flat in a stockbroker's Georgian block? A parlour in a typical semi-detached at Ealing? Part of an *Ideal Home* show house? You might think you were on pretty firm ground; but you would be wrong on all counts. Actually it is the interior of 'The Suite' on the new Union Castle ship R M S *Windsor Castle*. Not very firm ground after all; though no doubt the intention is that V I P's really like to forget that they have paid £1,021 to travel by sea to Durban and prefer to imagine themselves back in the chintzy comfort of their own homes, with a marble fireplace and shiny cocktail cabinet to complete the illusion. As might be expected the tourist quarters, though by no means inspired, are certainly less pretentious. The implication is that if you want sham design you must pay through the nose to get it – which is probably just as well when you come to think about it.

HEATING

RICHARD EVE
and
ARCHIE McNAB

Without any form of artificial heating in our homes we would be uncomfortably cold on and off in this country for about eight months of the year. Judging by the hundreds of appliances of all types that are on the market there appears to be no lack of attention to our needs on the part of the appliance industry. Yet the very profusion of designs, the standards of which visually leave much to be desired, combined with the conflicting claims of the various power suppliers, makes the task of choosing the right system to suit our particular requirements extremely complex and difficult. It is important therefore to examine the nature and aims of heating domestic premises before considering how to improve design.

Most authorities seem to agree that the ideal conditions for comfort should approximate as closely as possible to a sunny spring day, when the air temperature is moderate to cool, with a fair quantity of radiant heat and slight air movement. The difficulty of reproducing those conditions artificially is enormous and research has hitherto been concentrated on efficiency (ie, in simple terms, the production of the most heat from the least fuel) even though the most efficient heat-producer could fail to provide the greatest comfort.

A good deal is known about the characteristics of the environment which can result in feelings of comfort or discomfort. Broadly speaking, comfort is determined by the proportion of heat lost by the body in relation to that returned to it, coupled with the movement and humidity of air, and its degree of impurity. All the quantities are critical within close limits and although carbon dioxide can rise to a high level before discomfort is felt, human and animal smells will produce a feeling of stuffiness.

Even so, the range of temperatures maintained in dwellings in the UK still varies widely. Some people prefer to wear plenty of clothes in a comparatively cool room; others like light clothing and a very warm room, and so on. There are also ingrained social habits and emotional preferences – the tight circle round a blazing fire, for example. Whether these variations of habit are fundamental or whether they stem from the basic failure of artificial heating systems to reproduce the ideal natural conditions, is difficult to say.

Since, for the time being anyway, the consumers' choice is limited to systems which are something less than ideal, they should aim to offer a reasonable surrounding air temperature of between 60° and 70°F, wall surfaces, floors and ceilings which can be readily warmed and which are about the same as or

slightly above the air temperature, and gentle air movement.

The latest report on the subject by the Building Research Station* lists three main categories for domestic heating:

"1 full house warming; 2 partial heating, ie the full heating of two or three rooms from a central heat source, with the remainder of the house heated as required by gas or electric fires; or the background warming of the whole house to a uniform temperature lower than that obtained by category 1 together with topping up in individual rooms as required; 3 heating limited to individual appliances in one or two of the main living rooms.

"The main differences in the three standards are in the scope of the heating service. In the full house warming systems and background heating systems, for instance, comfort is enhanced by the fact that the house is uniformly warm; such systems are essential for the open plan house. By contrast, systems using separate appliances, eg open fires, in a limited number of rooms give a less uniform standard of comfort."

Full house warming from a central source is generally agreed to be the most satisfactory approach to domestic heating, but comparatively high installation costs have prevented its more widespread adoption. In a new house the cost of installing central heating is somewhat less than in older buildings and it is surprising that so few of the new houses built since the war have included such a system. Running costs are an equally important factor in determining the choice of a heating system and here such points as the degree of insulation provided by the fabric of the house are all too frequently ignored. Running costs can be illusory where a large number of different appliances and power sources is used in one house. The owner of an open fire, a couple of gas fires, a solid fuel boiler with an immersion heater and possibly an infra red heater in the bathroom would not find it easy to keep track of his heating expenses.

These then are some of the requirements and some of the *problems* of home heating. A more detailed consideration of the various systems that are available and which must be seen in the light of these limitations is given in the following pages. They are discussed under two main headings: *Full House Warming* and *Individual Appliances*. Partial house warming from a central source is not considered separately as it is essentially a compromise between the two.

* *Building Research Station Digest, No. 133, HMSO, 4d.*

The basic requirements for full house warming are that any heating appliance must be large enough to ensure that the rooms can be brought to a full standard of thermal comfort, and it must be economical; that is to say it must obtain as much of the heat latent in the fuel as possible. There are very few systems which operate at the 80 – 85 per cent efficiency which could be regarded as desirable. In terms of efficiency, the basic fuels, whether solid, gas, electricity or oil, show a number of variations.

Of the four fuel sources, solid fuel and oil are the cheapest per delivered therm and gas the second, and, provided efficient appliances are used, this order of cost will remain the same when continuous heating is required.

With oil and solid fuel the cost of the conversion plant appears to the householder as an installation charge; with gas and electricity the cost to the consumer is spread over the years as running cost. It is for this reason that the cost of installing electricity and to some extent gas is almost invariably cheaper than a comparable system using oil or solid fuel.

Radiators Space heating by water, which is the method normally thought of as 'central heating', usually heats by means of cast iron or pressed steel radiators, since a single heated pipe running round a room will not emit sufficient heat to provide thermal comfort during really cold spells. The skirting board heater is a development of the single pipe which, by some change in its pattern such as adding fins, increases the rate of heat emission to the desired point. Another method is to encase the pipes and allow air to pass through the casing, entering cool at the bottom and leaving warm at the top. The efficacy of these heaters can be increased by adding a fan. This type is known as a forced convection heater and provides thermal conditions similar to those of an

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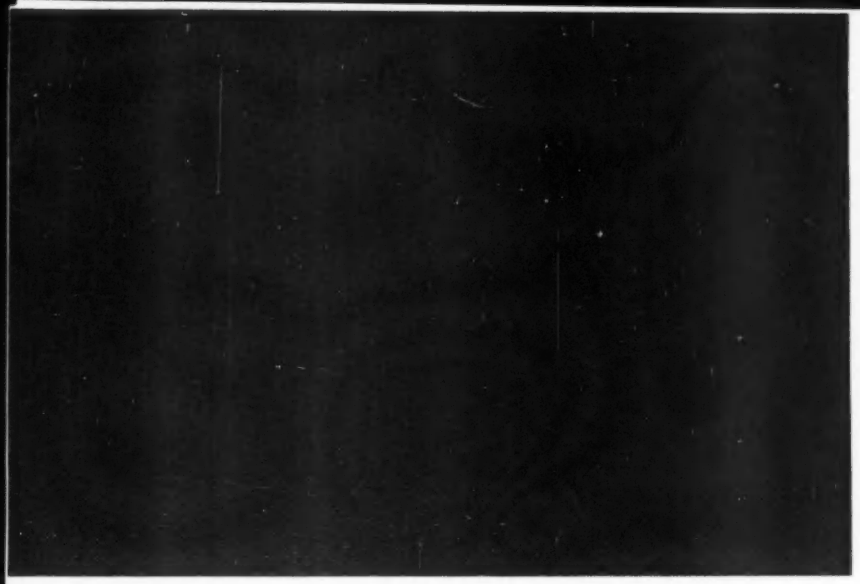

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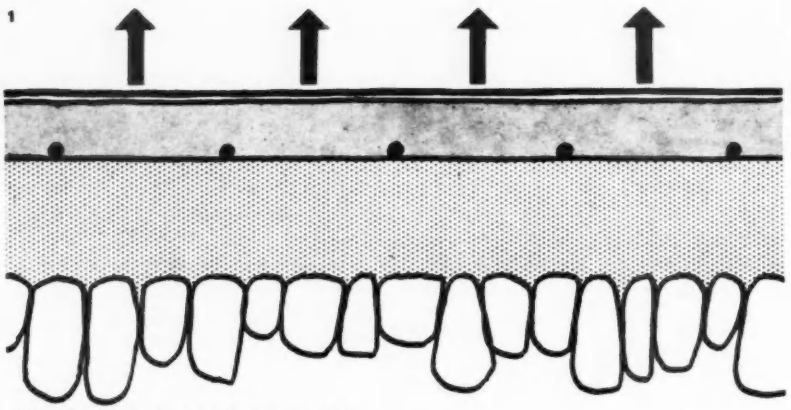

Drawings by Ross Jamieson

1 Surface heating by electric elements set in screeding below floor finish. The advantage of this type of installation is that the feet are always slightly warmer than the head. The reverse situation can cause considerable discomfort.

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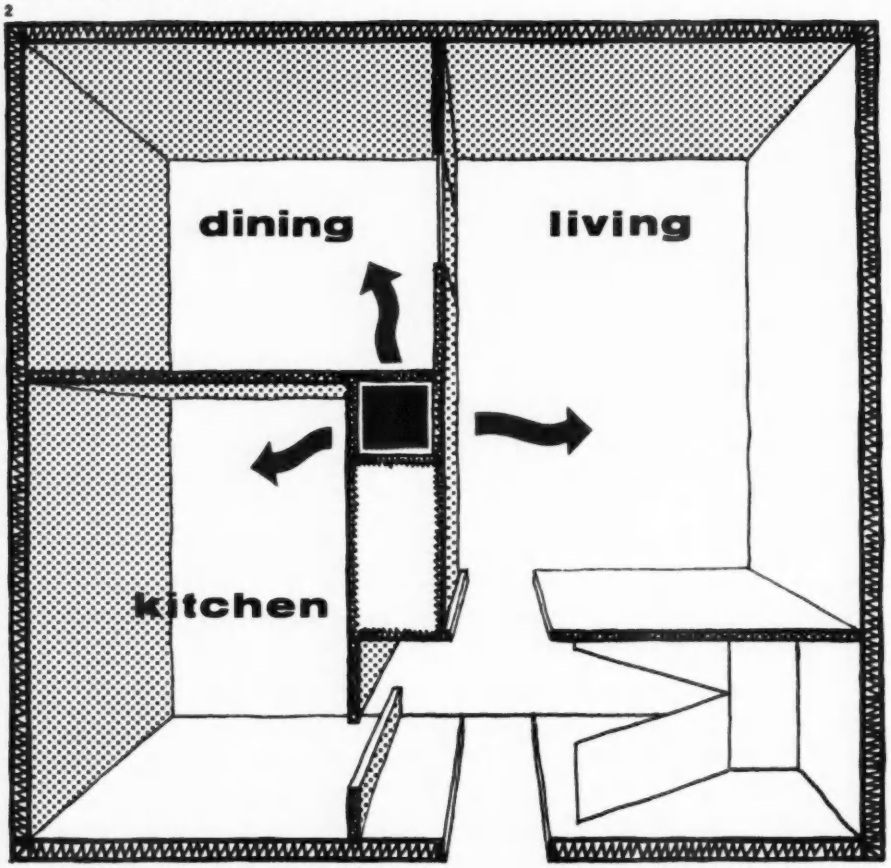

2 Plan perspective of a typical forced warm air heating system. The heating unit is located centrally (using either solid fuel, gas or oil); the warm air is forced out through adjustable grilles to heat the three rooms and circulation space on the ground floor. Air to the circulation space is carried by duct and, in a similar manner, the rooms on the upper floor would also be heated. If this form of heating is adopted, the internal planning arrangement of rooms must stem directly from the position of the unit. This kind of heating system could not be installed in the majority of existing houses, thus emphasising the need to consider heating at an early stage.

appliance which distributes air by duct. It is worth noting particularly that most developments in heating of this kind have been concerned with the most economical use of the latent heat in the fuel and with the design of the heating appliance, and are only partly concerned with its distribution throughout the house.

Surface Heating The alternative to having a heating appliance in the room is to warm one or more of the surfaces in the room – the most suitable being the floor, so that warm air may rise, thus avoiding the discomfort likely if heat is layered at head height alone. This can be achieved with embedded hot water pipe coils, set in the floor or by distributing warm air under it. Surface heating can also be achieved by the use of electric elements, **1**, but the disadvantage of all such systems is that their response to changes of temperature is slow. Not only is it necessary to heat the hot water, air or electrical element, but also to warm the materials in which they are located. Unfortunately present methods of house building involve the use of materials which have a high thermal lag. It is a factor of electric floor heating that heat should be built up overnight, to take advantage of off-peak charges and to emit sufficient heat for comfort during the day. The great disadvantage is that often too much or too little heat may be stored during the night for the unpredictable temperature of the following day. An electric element can overcome this to some extent where it is placed in an underlay to the carpet so that little but the carpet has to be warmed before the warmth penetrates the room.

Perhaps one of the greatest virtues of this form of heating is its invisibility. Not only is a reasonable thermal climate created but the interior is devoid of any heating device whatever.

Forced warm air The forced warm air system, **2**, is one of the most effective methods of heating a compact house, planned with the heating system as an integral and vital part of the dwelling. The heat source, oil or gas, is encased in an appliance which warms air and distributes it by grilles or ducts to the various rooms. By the use of a fan to force the air through the ducts, it is possible to decrease the size of the duct and increase the pressure enough to allow the air to be filtered against dust.

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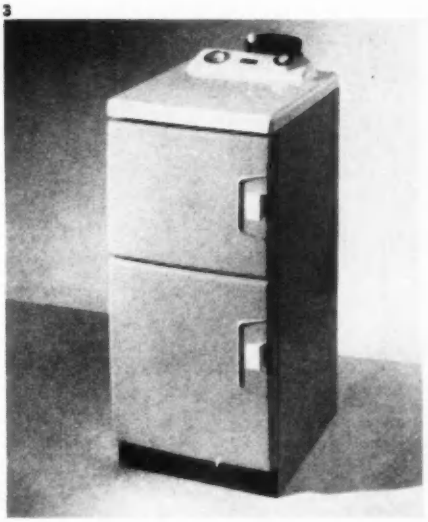

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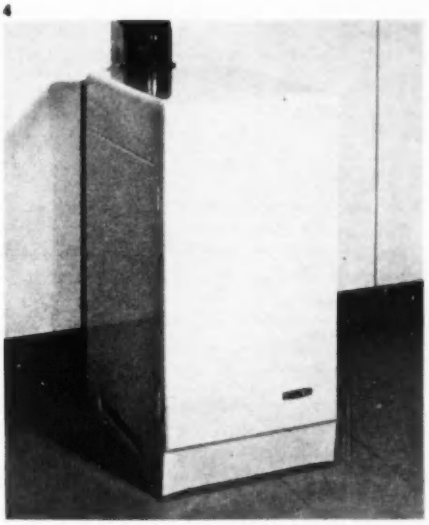

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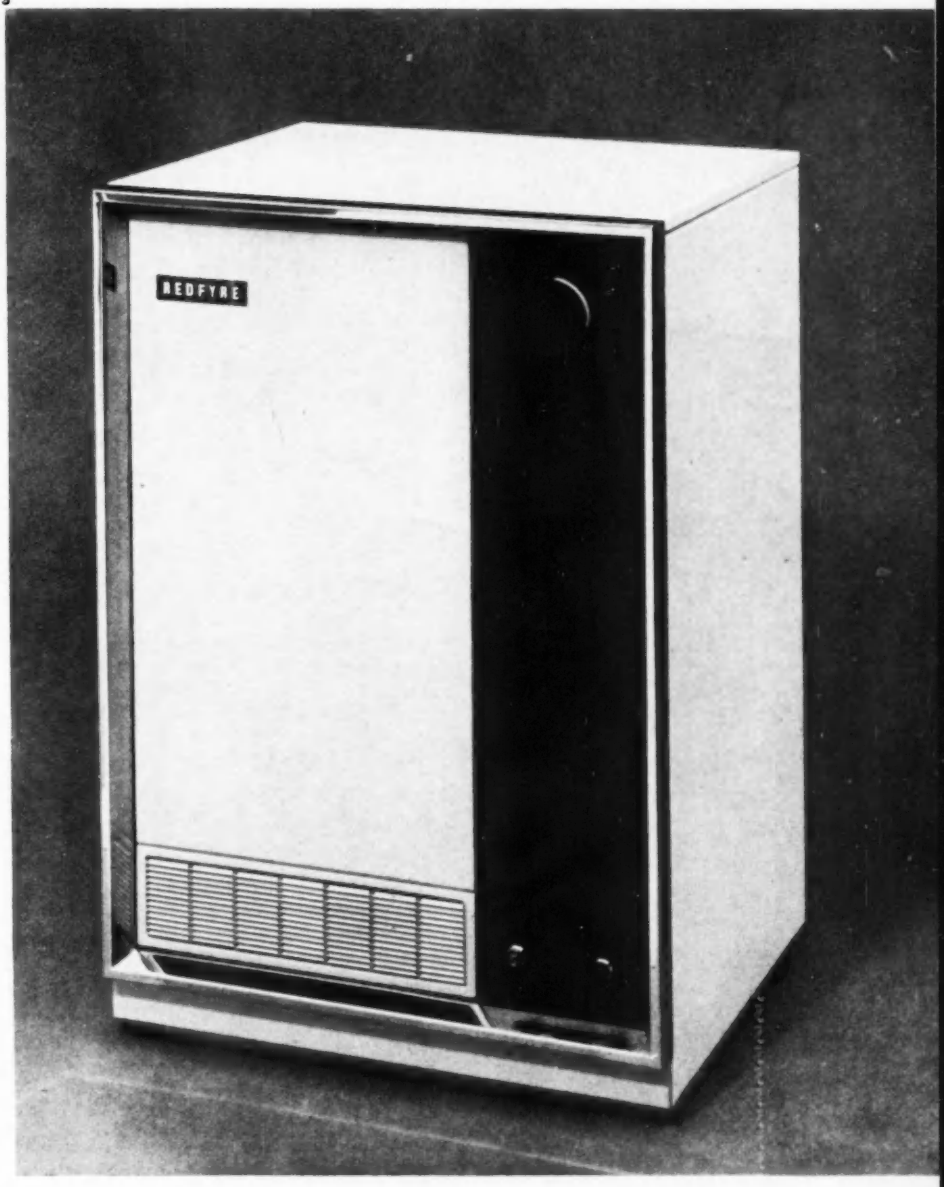

Boilers Although essentially a part of the central system of heating domestic premises, the design of boilers deserves special mention. The fuels used are either solid, gas or oil, but despite this variety there is a similarity of style in all types and it is mainly in terms of efficiency and cost that any material differences can be found.

3 Considerable developments in the design of solid fuel boilers have been made in recent years. Better detailing of cast iron is apparent on many models while sheet steel casings are a more recent introduction, with a standard of finish to match other domestic appliances. The *Cavendish* boiler, a good example of this second type, is available in three models, depending on the amount of heating required providing radiators from 45-140 sq ft as well as domestic hot water. CONSULTANT DESIGNER *A. B. Kirkbride*. MAKER *Crane Ltd. From £43.*

4 The gas boiler shows little superficial difference from solid fuel or oil appliances. This one, the *Potterton Diplomat 44*, will serve a hot water storage tank of, say, 65 gallons or 280 sq ft of radiator surface. DESIGNER *Eric Marshall*. MAKER *Thomas Potterton Ltd. From £53 10s.*

5 The Redfyre *Centramatic 50* oil fired boiler is the most successful attempt to provide a unit that can be built in to other kitchen fitments. Fully insulated and automatic, its low pressure vaporising pot burner is virtually silent and the boiler is supplied ready wired with pre-set controls. The precise and imaginative detail design raises this boiler to a standard not normally attained in domestic heating appliances. It has a stainless steel trim and interchangeable panels in British Standard colours. Output is 50,000 BTU/hr. DESIGNER *Brian Asquith*. MAKER *Newton, Chambers and Co Ltd. £128.*

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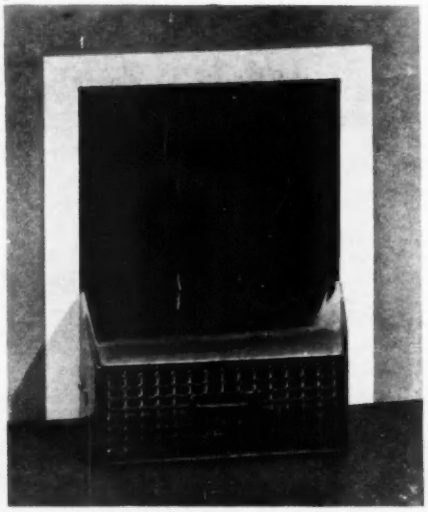

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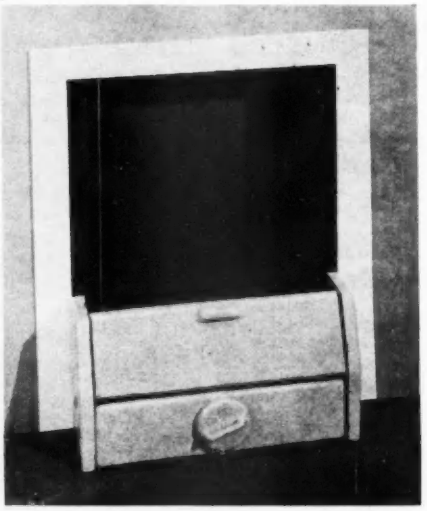

6 The Sofono *Low-view* is one of many continuous burning open fires capable of burning a variety of fuels. Fires of this type have increased efficiency over older grates but represent a compromise between maximum efficiency and popular demand. This example shows an interesting use of cast iron for a decorative effect. DESIGNER *Ralph Ormiston*. MAKER *Grange Camelon Iron Co Ltd. From £4 9s 10d.*

7 The *Airmaster* incorporates a drop-down front which, when closed, ensures all night burning with complete safety. It burns a variety of fuels and has an air regulator panel which allows some control of air movement. DESIGNER *H. L. A. Frost*. MAKER *Associated Builders Merchants Ltd. From £4 15s.*

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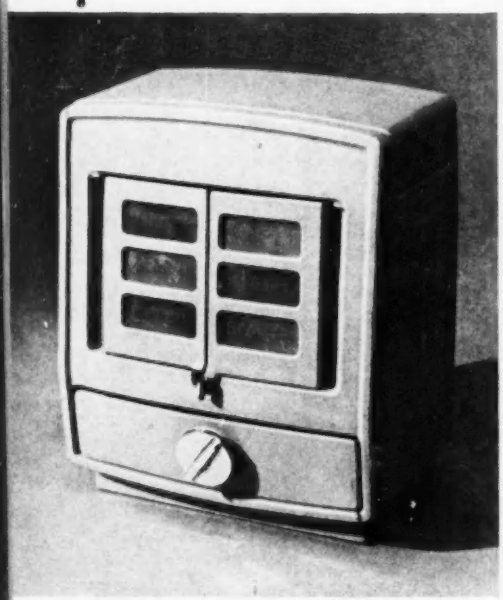

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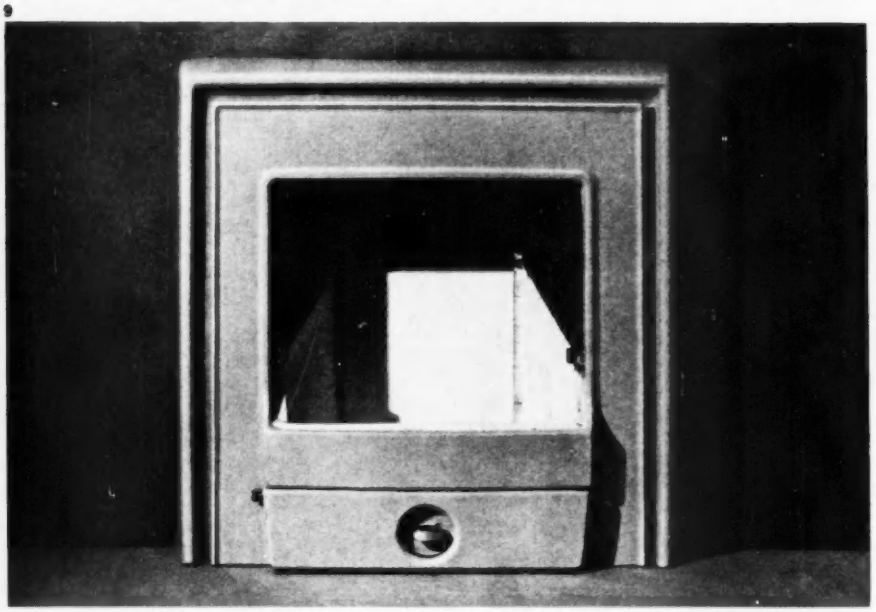

8 Fundamentally this type of stove is one of the most efficient of solid fuel burning appliances. Though efficiency is reduced when the doors are open, they provide something of the psychological effect of the open fire. The *Queen Heater* (which received a *Design Centre Award* in 1959) shows a rare refinement in the treatment of its cast iron casing. DESIGNER *David Mellor*. MAKER *Grahamston Iron Co Ltd. From £22.*

9 The *Rayburn No 1* is one of the best examples of a continuous burning open fire, incorporating a convection system and adjustable throat. Air is warmed in the convection chamber and is drawn through the concealed bottom vents, passing back into the room from the upper vents. The design should fit well in most fireplaces. It received a *Design Centre Award* in 1957. DESIGNER *David Ogle*. MAKER *Planet Foundry Co Ltd. £32 8s 2d.*

Solid fuel appliances The open fire itself is a by-word for inefficiency, and yet it is considered cheerful and desirable, even though it is expensive to run. On the one hand the induced draught is so great that the air temperature is low everywhere except near to the fire, and on the other the radiant source is so concentrated that one must keep at a distance. In compensation there is no 'layering' of hot air near the ceiling, ventilation will always be ample and the arrangement of furniture or pattern of living which is necessary to avoid fast moving cold air, absorbs and re-radiates an appreciable amount of heat. In terms of human engineering, therefore, this type of appliance is mainly to be criticised for the constraints it puts on movements in the home, because of the restricted zone of comfort.

During the first years of the last war and the first years of peace a tremendous stride was made (largely as a result of work by the Fuel Research Station and the British Coal Utilization Research Association) in bringing into existence the appliances we now know well for burning solid fuel in various forms. The devices are the openable stove, **8**, the closeable open fire and the deep grate. Most of these besides burning smokeless fuels, their prime purpose, were designed to incorporate other desirable features, such as overnight burning, controllable primary air to the fire, larger ashpits and instruments which make tending of the fire simpler, cleaner and freer of the risk of burning from handling hot metals. Most, too, allow for the inclusion of a back boiler to heat the domestic hot water and models are available in various sizes so that if one of sufficient output is chosen a few radiators can be taken from the primary circuit as well; alternatively some models are so arranged that convected warm air is available for ducting to rooms on the floor above. All these were logical improvements and sprang from careful consideration of the factors involved. The use of standard overall dimensions for various sizes helped to simplify the installation problem. The standard of heating within a house of 900 to 1200 sq ft floor area, using smokeless solid fuel, was raised without any significantly great increase in cost. The technical improvements, however, outstripped the visual. Few of the devices marketed achieved the high visual standard which is necessary in an appliance which is the focus of attention in a room.

Electric convectors and radiant heaters Here again heaters are shown, which are among the best within a range that varies from the crudest and cheapest examples of metal fabrication, often unsafe, to highly polished, richly garnished appliances which vie with the TV set or refrigerator as symbols of good living. The psychological concession by manufacturers to the coal fire is well known in those appliances which include artificial burning logs. For a quick source of heat, however, electric radiant appliances, like gas, can hardly be bettered. The electric fire, within its limits, is highly efficient for there is no wastage, though it is expensive to run.

10 The *Cosyvec* is an adventurous but restrained design which makes novel use of sheet steel and expanded metal. One of the essentials of a convector heater is that adequate provision should be made for the passage of air over the heating element and this is well considered here. The element itself is controlled by variable thermostat. MAKER *The General Electric Co Ltd. £10 11s.*

continued

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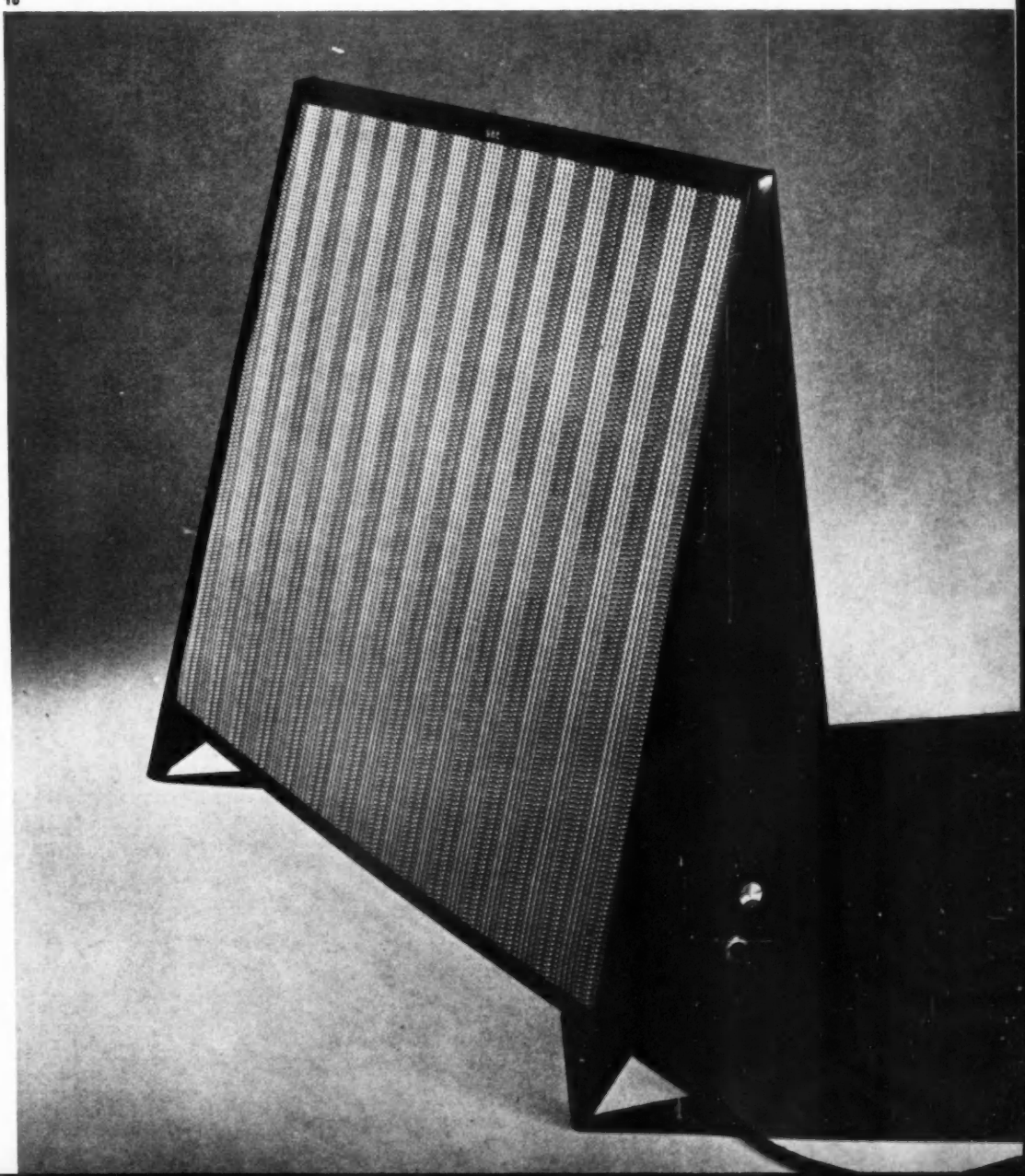

11

11 While the *Phantom* fan heater makes some definite concessions to current styling trend it is an extremely versatile appliance. The heater rotates through 360° to direct the air flow and has a bank of rocker switches giving three heat settings. These can be used with two fan speeds in any combination. There is also a separate on/off switch. The fan can also be used without heat. MAKER *Philips Electrical Ltd. £8 19s 6d.*

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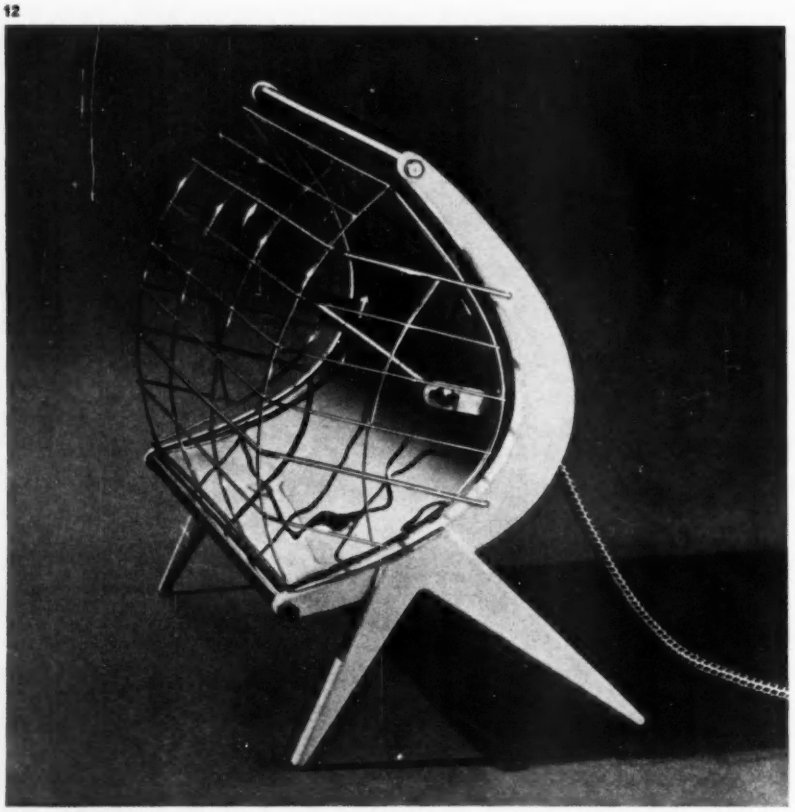

12 Radiant heaters, the earliest and most common form of electric heating, provide the greatest variety in design. They are certainly the cheapest form of localized heating as far as capital outlay is concerned, though running costs tend to be high. The *Victor* is a direct statement of its simple construction – sheet metal reflector supported on cast zinc alloy end sections. Available in 1, 2 and 2½ K W sizes. DESIGNER *Joseph Carr.* MAKER *E. K. Cole Ltd. From £3 7s 11d.*

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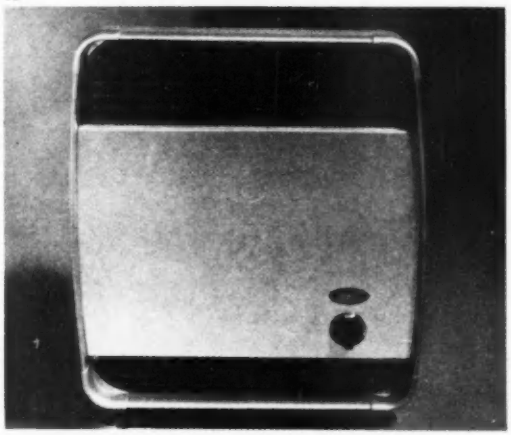
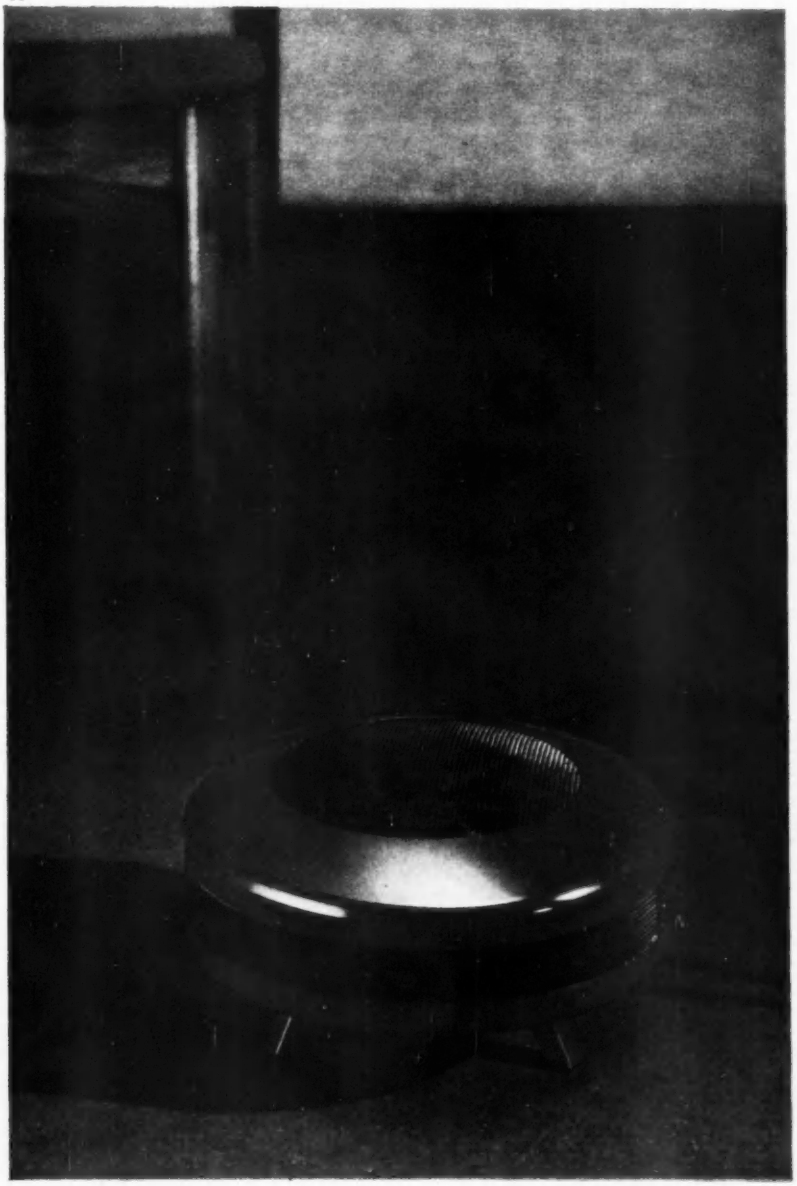


13 This electric convector fire is more conventional than the GEC *Cosyvec*, **10**, but its interesting use of pressed metal construction which is expressed in direct and simple terms represented a marked break-away from previous practice when the appliance was first introduced four years ago. It is available in 1, 2 and 3 KW sizes and incorporates a three-position switch. The gold anodized finish of the front panel makes the heater appear more garish than it need be. MAKER *Belling & Co Ltd. From £11 4s 10d.*

14 The advantages of fan heaters are their portability and versatility. They are a substitute, in localised form, for forced warm air heating systems. The *Elfin*, made of pressed and expanded metal, is commendable for the extremely logical and unpretentious expression of its purpose. Consumption is 1½ KW. MAKER *Parkinson Cowan Appliances Ltd. £7 13s 8d.*

14



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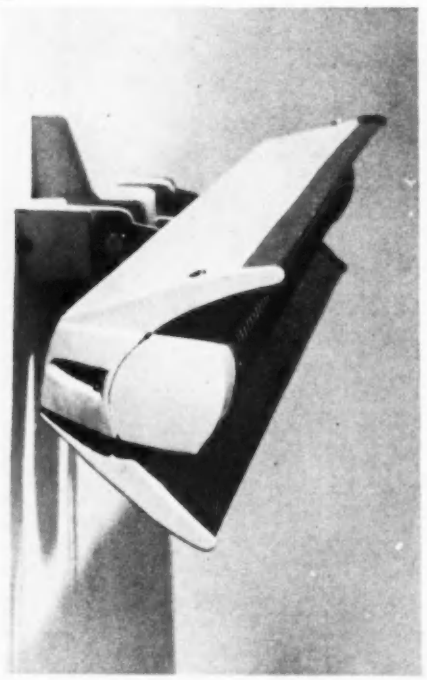

15 Infra-red wall heaters are a development of the older radiant heaters. The element (which is sheathed in a silicon tube) is however safer and lasts longer than the filament and fire clay type of element. There is less chance of fire or burns since the surface temperature is lower than a conventional element of the same wattage but shorter length. Burns can still be severe but are not accompanied by electric shock which occurs with open wire elements. These heaters are expensive to produce and often show a high standard of design and detailing, as in the case of the *Sunhouse* shown here. It is made in two sizes, each available with or without separate switches. MAKER *H. Frost & Co Ltd. From £4 18s.*

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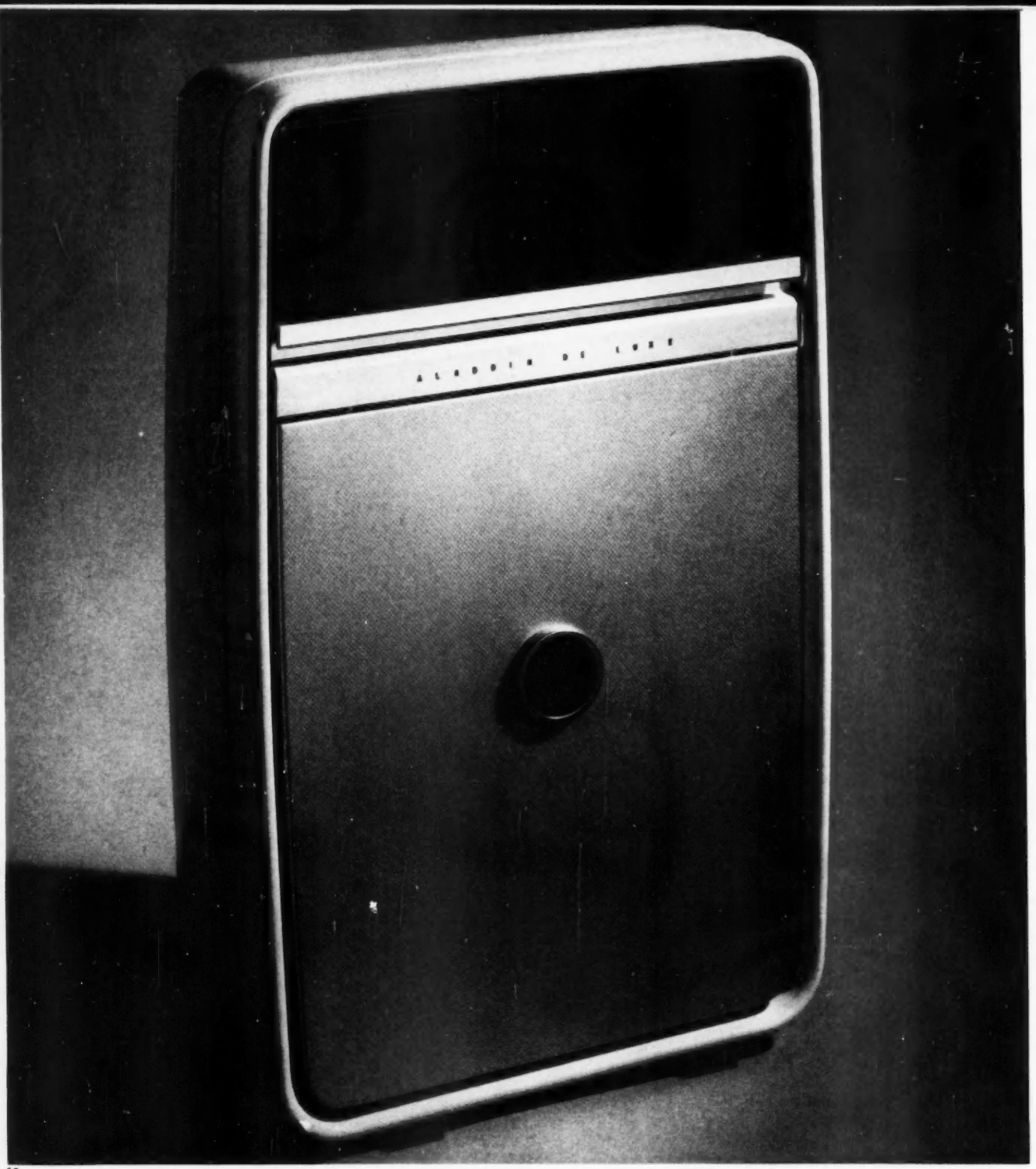


16

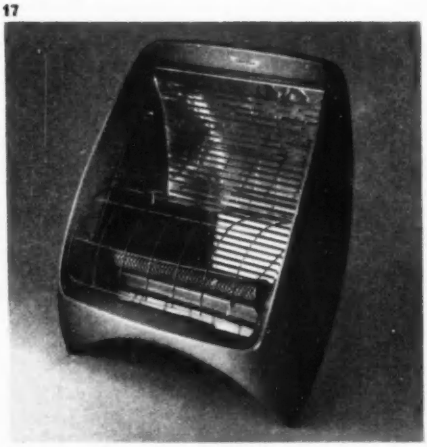
Oil convectors and radiant heaters The storm which blew up at the beginning of the year, although concerned mainly with drip feed radiant heaters, had some repercussions on the sale of all oil appliances. The paraffin convector heater, has, however, never given cause for alarm. The blue or yellow flame burning principles, both using a woven wick, have probably been longest in service and due to high efficiency and ease of maintenance, sales figures rose to a peak of popularity four or five years ago.

Prior to the war the market for this type of heater was shared by a few companies which have since been joined by many manufacturers with sheet metal facilities anxious to climb on the band wagon. In many cases the need to get in on the market quickly has precluded research on burners, and design and finish have been calculated to reduce prime costs to a minimum. Sales were usually made through wholesalers and distributors who were only concerned with the handling charge and a reasonably trouble free appliance. There are few examples of this type of heater that reach a high design standard.

16 The *Aladdin de luxe 3301* is one of the best designs for this type of appliance. The sheet metal construction and overall detailing have been handled with unusual refinement in a design which breaks away from the elementary box-like casings which have been characteristic of this type of appliance. Its approximate capacity is 8 pints which it consumes in 27-45 hours. Output is 3350-5580 BTU/hr. DESIGNER *A. B. Kirkbride.* MAKER *Aladdin Industries Ltd. £11 16s.*

Gas heaters During the first few years after the war the available supplies of gas were urgently required by industry, and the sale of gas on the domestic market was not promoted by the gas authorities. As a result little or no development in the design of gas appliances, particularly for space heating, took place during that period, and this has had a retarding effect on subsequent development. Recently however, the industry has been making a comeback with improved space heaters which incorporate thermostats, and combine radiation with convection. As a whole the industry has been slow to evolve an idiom which is in line with current ideas of interior design, and manufacturers have tended to follow the lead given by other competitive industries. As a source of heat gas has some advantages over electric heating since it produces a certain amount of moisture and, providing it is not excessive, this contributes to a feeling of comfort. The dangers associated with this form of heating (particularly where appliances are used with slot meters) are gradually being eradicated by the industry.

17



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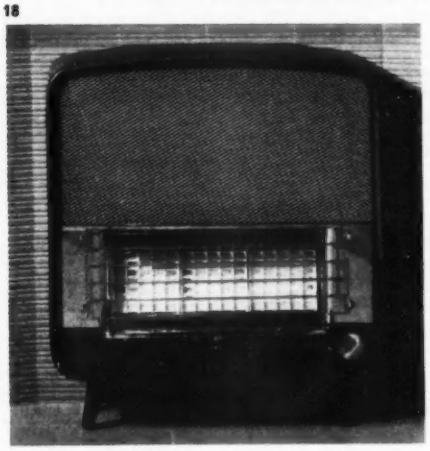


17 The *Cannon K12* is one of the few portable radiant gas fires available of any merit in design. The cast iron construction has been particularly well exploited to create a flowing, sculptural form reflecting the process by which the casing is made. MAKER *Cannon (G A) Ltd. £5 3s 6d.*

18 Pressed steel is used for the casing of the *Walmer* gas fire which combines radiant and convected heat in roughly equal proportions. The appliance incorporates a two stage heat exchanger with chimney draught control. MAKER *Bratt Colbran Ltd. £19 14s 8d.*

CONCLUSIONS

The selection of illustrations in this article suggests that definite improvements have been made visually in individual appliances. Although heating from a central source does not necessarily obtrude into living spaces, eg where small grilles, embedded heating coils, etc are installed, the radiator, even the newer pressed steel version, is an unattractive appliance which deserves more attention from industrial designers. There have been good developments in cast iron in solid fuel fires and stoves and the problems of producing boilers to fit in to kitchen units have become important considerations in design. But in the final analysis, the majority of appliances now in the shops still represent a low standard.

The factor which tends to govern the consumers' selection of a heating system today is capital cost and this seems to restrict the wide adoption of central heating systems at present, although high capital costs are often offset by low running costs and vice versa. The consumer must therefore choose within the limited range of portable appliances of many kinds. Research into the efficiency of appliances has largely been the interested research of the various fuel authorities and competition between these authorities, while admirable in that it results in higher efficiency of individual appliances, means that the broader issues on which major future developments depend, tend to be overlooked. There is thus no central source from which disinterested guidance can be sought. More important, there is little independent research on the human requirements of house heating related to changing living patterns. The problem of translating these requirements into terms of appliances, and of investigating how best those appliances can be powered (in terms of cost, efficiency, availability of supplies, etc) has hardly been attempted. Such work must be the starting point of the more detailed aspects of appliance design. As already mentioned, certain technical developments, such as electric underfloor heating, have led to the disappearance of the appliance altogether as a visual element in the room, and this in turn leads to changes in living habits and to the concept of room design as a whole. The question of whether this in itself is a desirable change as regards human requirements does not seem to have been explored.

Research into the more fundamental problems is difficult where the industry's loyalties are firmly fixed to particular fuel sources. The Consumers' Association and others have suggested the Board of Trade's Malony Committee on Consumer Protection should concern itself with this type of activity in the future.

Do posters work?

L. BRUCE ARCHER

In a recent article (DESIGN 140/32-35) *John E. Blake questioned the existence of any real knowledge of the functional effectiveness of graphic design. The following article describes a unique scientific investigation into the effectiveness of one class of graphic design – the safety poster.*

When the British Iron and Steel Federation asked the operational research department of the British Iron and Steel Research Association to find out whether safety posters had any real effect in preventing accidents in steelworks*, the analogy with the effectiveness or otherwise of poster advertising for commercial purposes was immediately taken. It was at once suggested that to some extent, at least, the principles underlying advertising must surely be applicable to safety propaganda, and the investigators remained conscious of this throughout their experiments. Readers of DESIGN, however, will probably be more interested in the converse question – how relevant to graphic design in general are the conclusions arrived at by BISRA?

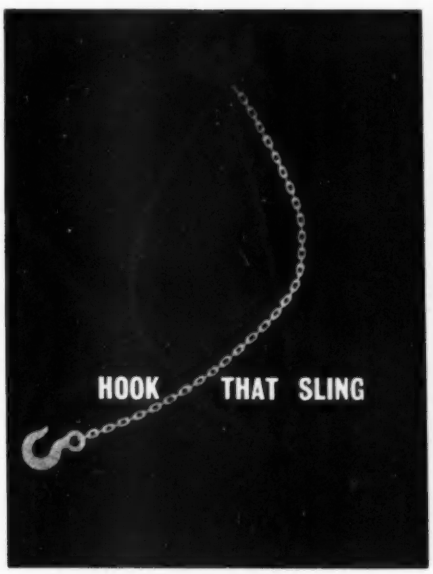
The most startling conclusion is that the *effectiveness* of a poster seems to have little to do with either its memorableness or its appeal to personal tastes. The BISRA operational research workers selected for their experiments the act of hooking back the triple steel chain slings which are frequently attached to the hooks of overhead travelling cranes. Such cranes are used for carrying loads of material or heavy pieces of equipment up and down the machine shops in steelworks. This activity was selected because failure to hook back slings when travelling empty is potentially dangerous to men and machines; because it occurs frequently enough to provide a statistically acceptable number of observations; and because an observer can tell at a glance and discreetly record whether or not the safety precaution is being practised at any given moment. Three safety posters were specially designed by Eric Ayers exhorting slingers to "hook that sling". All three posters were simultaneously displayed in 11 workshops of three steelworks. The same three posters were displayed consecutively for a fortnight each in 10 workshops of three other steelworks, and four workshops of a seventh steelworks were used as controls where no posters of any sort were displayed. Over all there was a total of 140 cranes. The effectiveness of the posters was measured by the extent to which their display modified the behaviour of the workers in the frequency with which they hooked back their slings. Observations were recorded for five weeks before any posters were displayed, for six weeks during the display of posters, and then again for a fortnight six weeks later, the posters having remained up during the interval in recording.

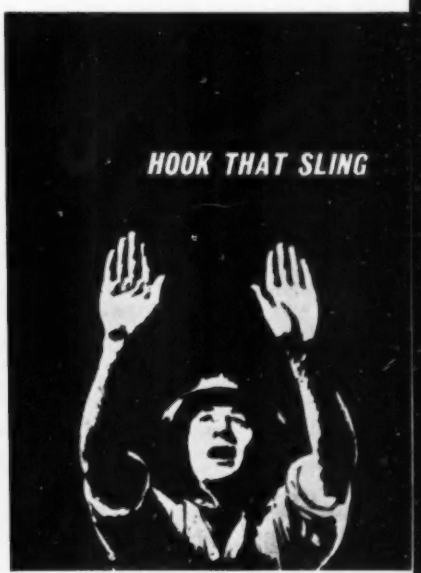
The experience of psychologists, poster designers, and advertising experts was drawn upon to make the poster designs and siting as forceful as possible, and the experiment was designed to determine how effective posters can be, rather than to compare the effectiveness of one poster with another. In the event, the experiment demonstrated that the poster campaign *did* cause a material, though not overwhelming, improvement in the frequency of hooking back slings, and that this improvement was maintained – even strengthened – at the end of three months.

However, of all the facts and surmises which arose from this investigation, the most significant factor is that an individual's liking or disliking for a poster, or the vividness of his recollection of it, or even of his impression of his own response to it, seem to bear little relation to the *real* effectiveness of the poster measured by the actual modification of his behaviour. Obviously a passer-by must notice and understand the message of a poster before he can respond to it at all. Undoubtedly the mechanism of reiteration, recognition and recall also plays its part. Nevertheless graphic designers must be wary of assuming that striking or memorable design is *per se* effective, or that effective communication necessarily leads to active persuasion. Sobering investigations such as the BISRA experiment can only do good. In the words of the report "From a mounting body of such evidence . . . one might even think of initiating a coherent theory of posters as media of communication".

Designer's brief

Eric Ayers comments: "Working to this kind of brief was a stimulating problem. The challenge of a specific statement like this, far from restricting my visual ideas, allowed a surprising amount of freedom. Designing these posters has not altered my method of working as I feel that the problem should be analysed, broken down and finally re-created so that the visual message is communicated instantaneously. The restrictions of working within the framework of this experiment contributed to the power and purpose of these posters."





Two of the posters specially designed by Eric Ayers for the BISRA experiment. The third poster, OPPOSITE, is shown in position on one of the carefully chosen sites. The posters are printed in red and black. In the example, ABOVE LEFT, the chain in the foreground is printed in fluorescent red to make it stand out from the others and give a three dimensional effect. The slinger in the poster, ABOVE RIGHT, is making an emergency stop signal.

* *An Experiment on the Effect of Specially Designed Safety Posters*, S. Laner and R. G. Sell, British Iron and Steel Research Association.

Review of current design

A selection of items recently accepted for 'Design Index', the CoID's photographic and sample record of current well designed British goods. 'Design Index' forms an essential part of The Design Centre, 28 Haymarket, SW1, which is open on week days from 9.30 am – 5.30 pm, and on each Wednesday and Thursday until 9 pm.

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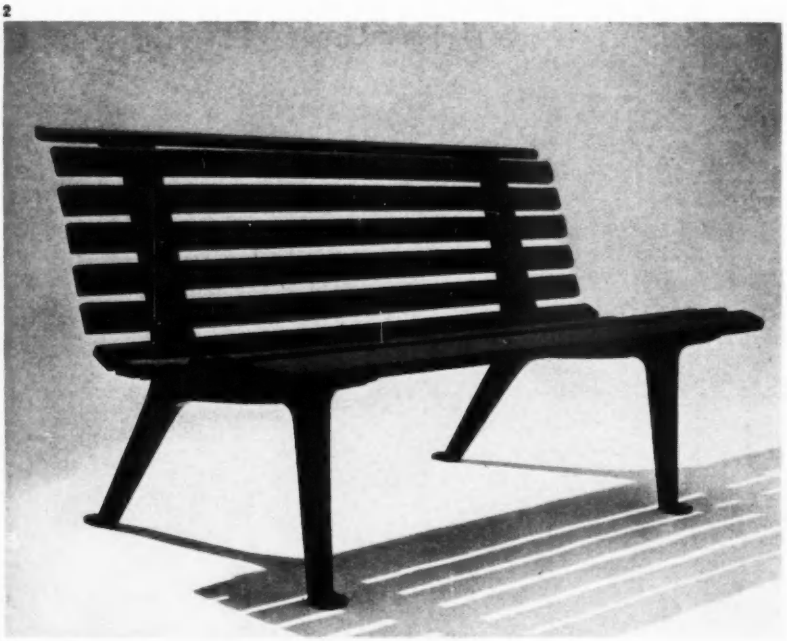

3

1 Reading lamp (model *F 38064*) in brass with three-ply white opal inner glass, satin finished, and neutral Perspex outer shade. The base is stove enamelled white. Height 22¼ inches. MAKER *The General Electric Co Ltd. £7 3s.*

2 Outdoor seat with slats of natural oiled afrormosia. Frame of black cast iron. Lengths 4 ft (model *1007*), 6 ft 3 inches (models *1005* and *1006*) or 8 ft (model *1004*); depth 28 inches; seat height 15 inches. DESIGNERS *Tom Lupton and John Morton.* MAKER *L M Furniture Ltd. From £13 6s.*

3 *Euphoria* printed cotton and rayon fabric. Two colour ways. DESIGNER *Doreen Dyall.* MAKER *Gayonnes Ltd £1 13s 11d per yd (50 inches wide).*

4

4 Screen (model *Rotaplan*) with support poles in steel, complete with frame support collars and adjustable spring shafts for ceiling heights of 7 ft 6 inches – 10 ft. Non-inflammable cellulose acetate panels available in various colours, mounted in aluminium frame. Poles are sprung into position with screens suspended between them. DESIGNERS *John and Sylvia Reid.* MAKER *Rotaflex (Gt Britain) Ltd. £22 7s (cellulose acetate screen and two shafts); poles and screens available separately.*

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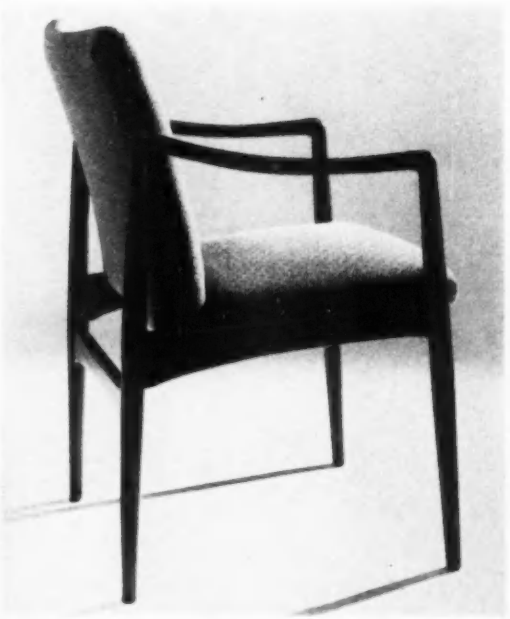

5 Armchair (model *K 309A*) with frame of solid mahogany or walnut; back and seat frame in beech. Foam rubber seat mounted on moulded millboard base and padded back on Pirelli rubber webbing. Various colours and grades of covers available. Height 32 inches; depth 22½ inches; width 23 inches; seat height 17 inches. DESIGNERS *George Keen and Gordon Grant Riach.* MAKER *G. H. & S. Keen Ltd. From £16 19s 6d.*

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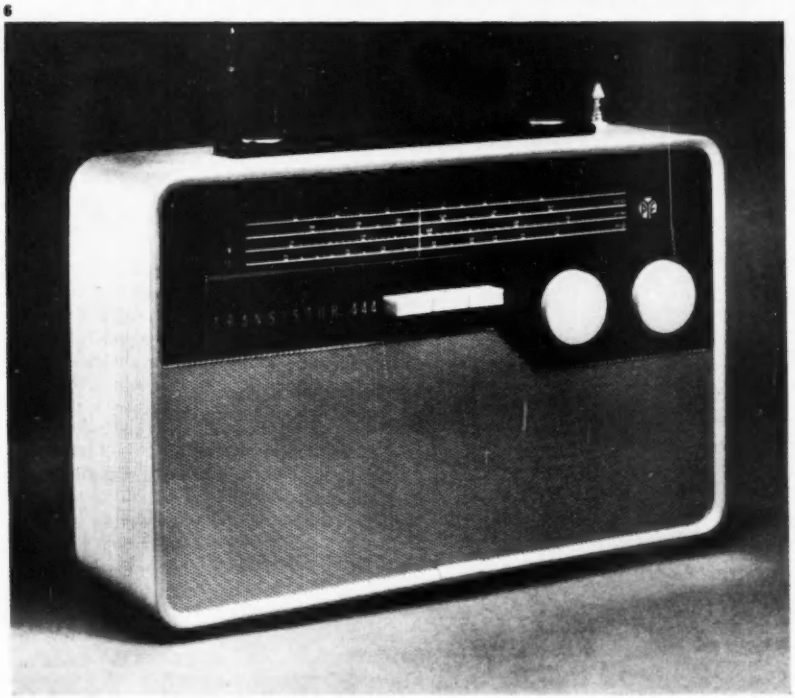

6 Portable radio (model *P444 Cruiser*) using transistors and printed circuits. Cabinet of anodised aluminium. Three bands, long, medium and 1·7 – 3·8 Mc/s selected by push button. Telescopic whip rod aerial. Power supplied by 9V battery. Height 8¼ inches; width 11⅞ inches; depth 3¾ inches; weight 5¼ lb. MAKER *Pye Ltd. £24 3s.*

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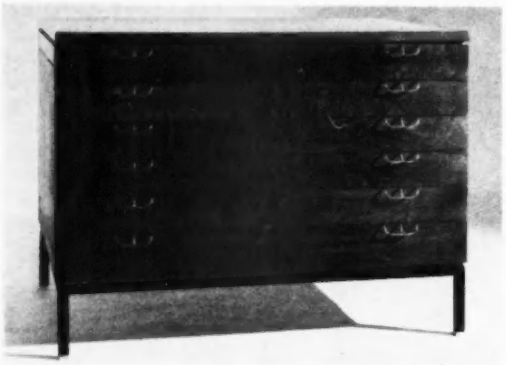

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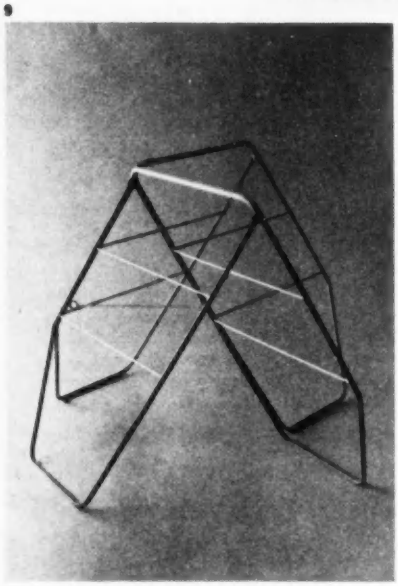

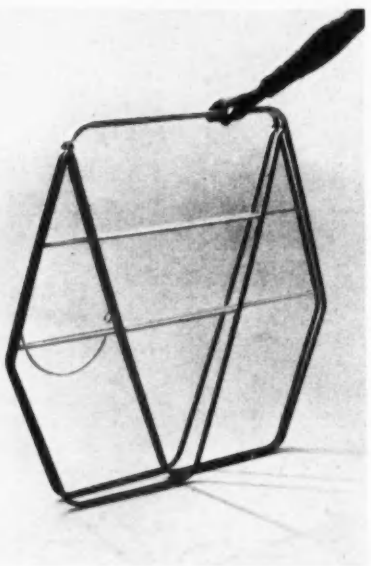

7 Plan chest (model *UPC6de*) in Nigerian pearwood mounted on a one-inch square steel tube frame. Top surface in linoleum, teak veneer or Formica. Length 3 ft 9 inches; depth 2 ft 9 inches; height 2 ft 10½ inches. DESIGNER *Basil Spence & Partners.* MAKER *George M. Hammer & Co Ltd. From £62 5s 1d (with linoleum top).*

8 Inlaid linoleum (design *Chipline 214*, quality C) available in 10 colour ways. The colour code of the selection illustrated is 05 (*left*), 04 (*centre*) and 10 (*right*). MAKER *Michael Nairn & Co Ltd. 13s 6d per yd (6 ft wide only).*

9 Collapsible clothes airer (model *Fold-a-way*) fabricated from steel tube, stove enamelled either blue or red. Horizontal rails covered with pvc plastics. 34 inches × 36 inches × 1½ inches when folded. DESIGNER *John D. Clegg.* MAKER *Dennison Equipment Co (Midlands) Ltd. £2 12s 6d.*

10 Seventeen-inch television sets (*Bermuda* range) with either polished veneer cabinets or finished in Armoride fabric. Main controls side mounted. The use of a short neck, 110° angle cathode ray tube minimises depth from front to back. Width 20⅛ inches; height 16¼ inches; depth 12⅛ inches (dimensions overall). DESIGNER *Eric Marshall (head of design dept)*. MAKER *Ultra Radio and Television Ltd. £65 2s.*

11 Cowhide suitcase (model *Aero 11/66/FGA*) made of full grain cowhide, walnut colour, on cane frame. Available in six sizes from 19 inches – 32 inches. MAKER *Tanner, Krolle & Co Ltd. From £26.*

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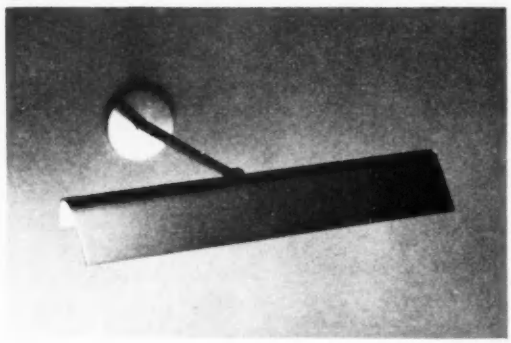

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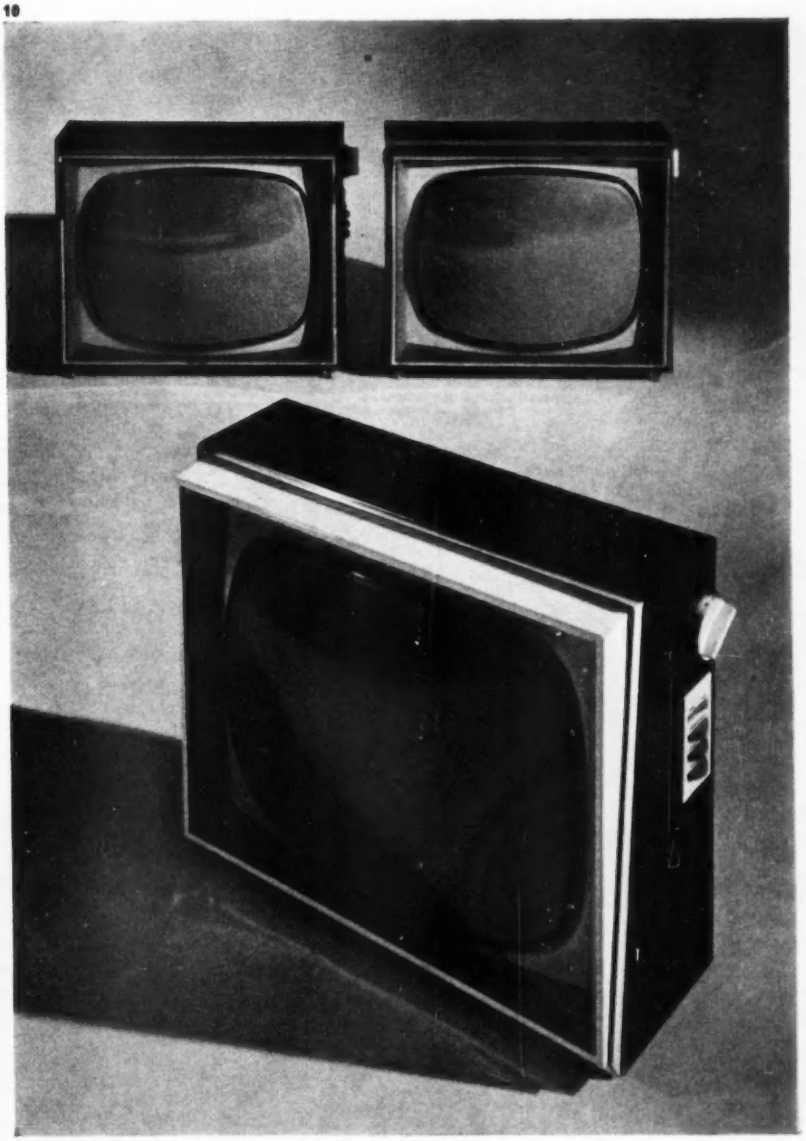
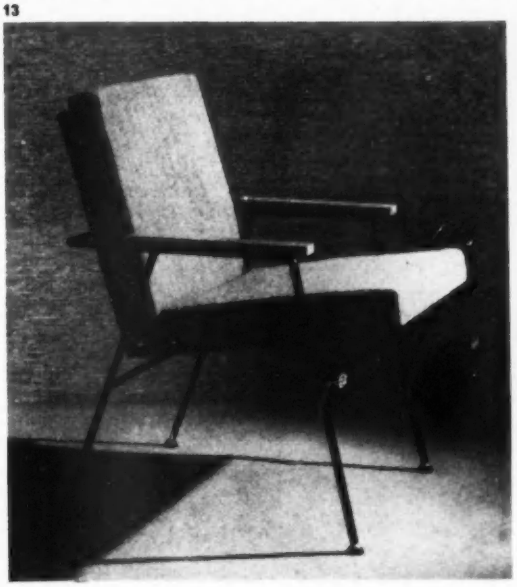


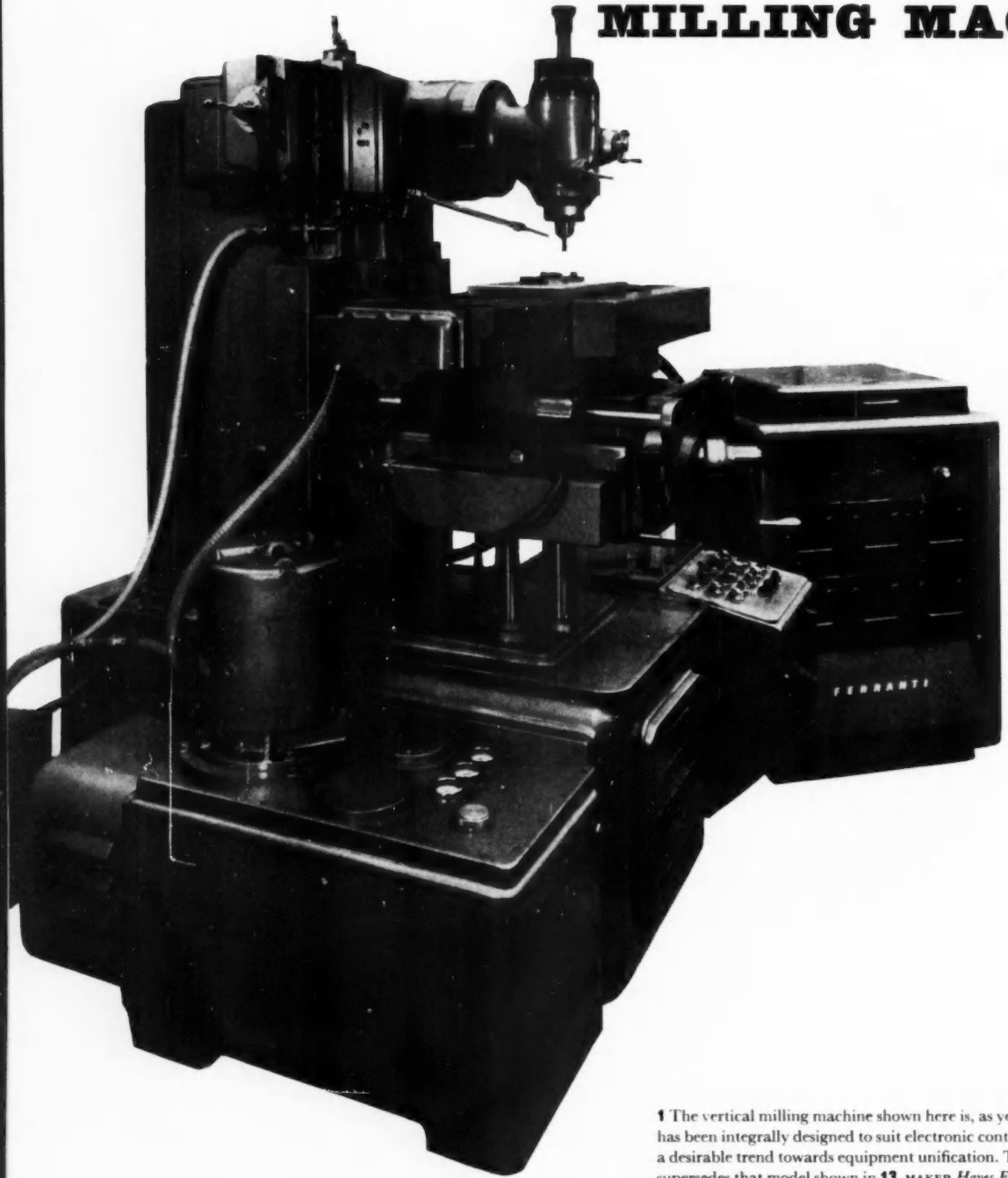
12 Wall lighting fitting (model *MA 801/T1*), one of a range available in seven lengths, carrying up to nine 60W lamps. The lengths can be joined to form a continuous run. Reflectors are extruded aluminium, finished anodised satin silver or stove enamelled in one of six colours. Underside of reflectors is white. Length from 1 ft 4 inches to 9 ft 6 inches. DESIGNER *Paul Boissevain*. MAKER *The Merchant Adventurers Ltd. From £2 15s.*

13 Armchair for household or contract use (model *HC1*) with frame of $\frac{3}{16}$-inch mild steel rod stove enamelled semi-matt black or in specified colours. The cushions are 2-inch thick polyether covered with moquette, resting on Pirelli rubber webbing strips. Cushion covers are zip-on and available in weatherproof material for outside use. Seat height 18 inches; depth 18 inches; width 24 inches. DESIGNER *Aidron Duckworth*. MAKER *Holborn Metal Works Ltd. £14.*

13



VERTICAL MILLING MACHINES



1 The vertical milling machine shown here is, as yet, the only British unit which has been integrally designed to suit electronic control requirements. It indicates a desirable trend towards equipment unification. The control console supersedes that model shown in **13**. MAKER *Hayes Engineers (Leeds) Ltd for Ferranti Ltd;* model *Tapemaster*.

The British machine tool industry has been strongly criticised in the Press, though the criticisms have not always been made for the right reasons. The industry has been making good progress particularly in the development of automatic control equipment but so far this has not been matched by an overall approach to design, which the author argues is now necessary.

While criticism was being levelled at the machine tool industry at the end of 1959, orders for British machine tools were increasing and have continued to rise since that time. The industry is not at full capacity, but conditions are now described as 'buoyant'. Adverse comment arose partly from the publicity which attended Professor Seymour Melman's reports of Russian machine tool progress* and partly from news that the Department of Scientific and Industrial Research had investigated the industry. Professor Melman, of Columbia University, had suggested that, once internal demands were satisfied, Russia would be able to unload large quantities of mass produced tools on world markets. He was not directing an attack upon the British machine tool industry but pointing out what he considered to be an imminent danger to Western machine tool industries as a whole. Unfortunately his comments, together with news of the DSIR report, were used to add fuel to critical fires.

Russian developments are by no means unknown to the British machine tool industry, and some of its members were pained by the publicity given to Professor Melman's views. They were further aggrieved by demands in some quarters that the DSIR report, based on information supplied in confidence, should be publicly exposed. From time to time, DSIR examines different sections of industry in relation to research demands, and the machine tool investigation was probably not much different from other investigations which it conducts.

Thrown on to the defensive, spokesmen for the industry pointed out that Russian mass produced tools must inevitably be of a basic and highly standardised nature; that is centre lathes, drilling machines and the more fundamental types of milling and grinding machines. They were faced with the difficulty of trying to explain that the immense variety of machine tools arises from individual user requirements, and that under 'free economy' conditions such demands would not be met by standardised designs. Specialisation both to suit particular user needs and to develop more automatic control equipment would counter any mass threat from the East.

Variety arises not only from demands for different types of machine (even within a specific class) but also, of course, from the need to suit different price levels. The character of the industry reflects these diverse requirements, being composed of a large number of small companies, though it is comparatively small as a whole. Certainly there must be a development policy; but a single broad policy appropriate to every maker is difficult to arrive at.

For example, development of automatic control equipment is a slow business. Yet it is a vital part of a development programme, appreciated in Russia as elsewhere, since reports from Russia show that work on automatic controls is proceeding on as massive a scale as the production of machine tools. In this country, the advanced machine tool design course at Manchester University, initiated by the Machine Tool Trades Association, is very wisely concerning itself with such developments.

Competition from abroad

However, Professor Melman's views, confirmed by others who have visited the East, cannot be ignored especially by those whose machine tools are of a more standardised nature. Even today international competition is fierce, but it is believed that the real onslaught has yet to come. Within five years the threat may well be fact; and it is too easily forgotten that radical techniques cannot be developed and applied to production machines in five years.

But while these new developments in control equipment must be given all the priority which the situation demands, it is equally essential for the industry to pay more attention to the overall design of its products. As machines become more complex it is becoming increasingly necessary to integrate a wide variety of diverse equipment. It is not merely a question of visual unity, though the importance of this should not be underestimated. The design should take into account all those aspects of a product involving human contact or action, including study of the most efficient layout of operator controls. Since the new equipment which is being developed will create new and unfamiliar demands of this type, it is important to consider both the human engineering and industrial design aspects of the problem.

This review shows a type of machine which undertakes processes in contra-distinction to those effected on centre lathes, described in a previous review (DESIGN 131/49-53), and the illustrations clearly indicate the need for a change of heart by the industry in its attitude to design. Orders on the industry are neither too few as to inhibit progressive action nor so many as to require completion before improvements can be initiated. The time to act is now, while there are many opportunities.

Whereas lathes are used primarily for cutting circular forms, milling machines are concerned with performing cutting operations on plane areas. Lathes use single and fixed cutting tools against rotating workpieces; milling

*Professor Seymour Melman, *The Promotion and Exchange of Information on Research in Industrial Economics*, European Productivity Agency, Project 420.

W. H. MAYALL

The author of this feature is CoID industrial officer for engineering. He has been engaged in development work in mechanical and aeronautical engineering since 1940. For some years he undertook a research project on mechanical power transmission systems, and in 1959 he joined the CoID. Mr Mayall is an Associate Fellow of the Royal Aeronautical Society.

Vertical milling machines

machines employ rotating cutters against workpieces either fixed or moving in a controlled plane. There are two main classes of mill: horizontal and vertical. As the descriptions imply, the axis of cutter rotation on a horizontal mill is in the horizontal plane; on a vertical mill, in a vertical plane.

The vertical mill undertakes facing, boring and profiling operations and this capacity has made it particularly useful in the production of some of the intricate components now required in engineering, notably in aeronautical and electronic fields. To achieve higher production rates and at the same time obtain the exceptional accuracies required by such parts, electronic control devices have been developed.

So far as automatic controls are concerned the vertical mill could be described as a basic machine tool in a state of transition. This is not to say that vertical mills will be made which are adaptable to either human or electronic control. Electronic controls impose different conditions upon these machines which must be developed mechanically to obtain the most value from the new control systems in terms of speed and accuracy.

All the vertical mills shown are known as 'knee' types, the knee constituting the bed which moves vertically and supports the work table. Controls at the knee can direct the work table generally in all three planes and this can be done either by handwheel or by controlled power operation. The dominant feature – the column supporting the milling head into which various cutting tools can be fitted – houses drive machinery, as well as being a structural member and must be extremely rigid with the base. This quality is seldom shown by the long loose curves from base to head which characterise most vertical mill columns. Such curvatures might be satisfactory if they were not interrupted; but the need to install controls in the column and to provide access to machinery means that the surfaces must inevitably be broken. Only the Schaublin and Gambin machines, **9**, **10** and **11**, reject this approach, so permitting clearer and simpler access panels and control layouts.

Relating individual parts

Concentration upon smoothly formed individual parts of vertical mills rather than on obtaining an overall related design is as noticeable on vertical mills as on centre lathes, or indeed other conventional machine tools. This characteristic is unfortunate when great care has often, and obviously, been taken to obtain these moulded forms. It is difficult to equate such shapes with the essentially planar form of the work table on vertical mills.

Control layout on milling machines cannot be so well defined as on lathes. While a lathe operative is fairly stationary, a milling machinist may have to move around his machine and controls at the knee may be duplicated at the column. Controls at the knee must also be operated at varying heights, a factor which, combined with the need for the operator to move around the machine, would be worthy of some serious ergonomic study.

The principal controlling elements are generally standardised in their location and operate in a commonly accepted sense. However they are seldom identified. Usage breeds familiarity and hand controls only acquire labels when they become push-buttons. The concentration upon individual forming for its own sake destroys a coherent control presentation at the knee as much as on the column. To the extent that graduated and vernier feed dials are generally farther from the operator's eyes than they are on lathe tool feeds, the numerical indicator described in the centre lathe review should show more advantage on mills than on lathes. So far this device has only been tried experimentally and is not incorporated by any maker in his production units.

It is disappointing that in this article it was not possible to show any evidence of a comprehensive approach to milling machine design in Britain. An example of what has been achieved on other types of machine tools in the USA has been described in *Design and People 1* (DESIGN 136/50 – 54), and a report on a Belgian development appears on pages 70 – 72.

Conglomeration of equipment

Electronically controlled mills are, at the moment, largely adaptations of manually operated machines, and the illustrations show the danger of perpetuating unrelated design concepts. It is not simply a question of style. The designer's task in housing electronic equipment may, admittedly, be easier; but working within the design confines of his own apparatus, he is quite unable to mimic the rounded forms of the machine. Consequently, the addition of automatic control devices is liable to create a disparity in appearance, which must obviously be corrected if the complete machine is to show any coherence in design.

Individually the control equipments may be well designed, as in the case of the Ferranti unit, **13**, which although now superseded, shows how the attention can be directed where required within the frame of undistracting surfaces. There is also a move for control cabinets to become smaller and plainer, **12**. Admittedly the problem is less difficult here than on the machine – but the aim is just as important on the machine as on its controller.

To a great extent this review of milling machines echoes the findings on centre lathes, and similar reactions would be found in other sections of the machine tool industry, particularly those which have evolved over a long period of time.

When evolutionary processes receive a sudden jerk forward as in the case of automatic control application to machine tools, it is clearly time to reassess all design factors – not merely those connected with technical developments. The expectation of even greater competition from abroad should be sufficient to stimulate a more radical approach to the design of other machine tools as well as vertical milling machines.

2 Sweeping curves on the vertical column are characteristic of most vertical milling machines. The uncluttered layout on this machine has been obtained not so much from its curved forms but from the successful enclosure of working elements and control lever connections. MAKER *B. Elliott (Machinery) Ltd;* model *V2 Rapidmil*

3 Controls on a vertical mill cannot be so easily grouped as on a lathe. Where surfaces are broken up by access panels a confusing effect is obtained. MAKER *Midgley & Sutcliffe Ltd;* Richmond model *No 3.*

4 This machine illustrates a different approach to column construction but also points the dangers of unco-ordinated design. Individual items, the bed for example, have been carefully detailed but they are not related successfully. MAKER *Adcock & Shipley Ltd;* model *2VS.*

5 Controls on this machine are located at the knee of the mill which carries the work table and is movable in a vertical plane. Such controls have therefore to be operated at varying height levels. This feature combined with dispersal of controls makes the milling machinist's task a more active one than the lathe operator's. So far as is known no ergonomic investigations have been undertaken on vertical mills. The control layout on the type of machine illustrated is an improvement on its predecessor. MAKER *Cincinnati Milling Machines Ltd;* model *OM No 3.*

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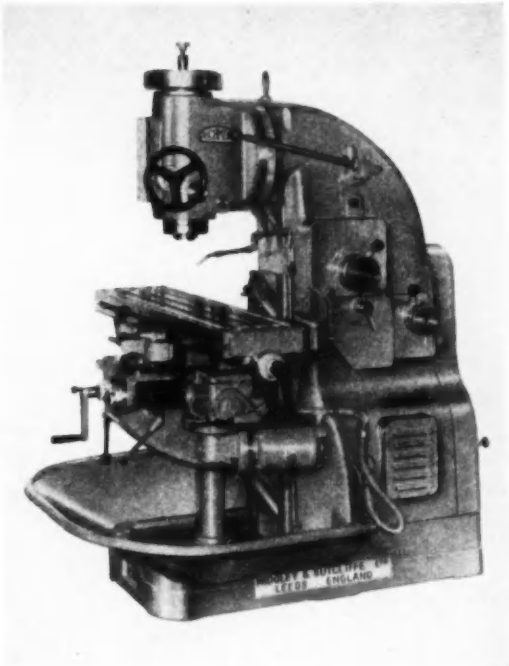

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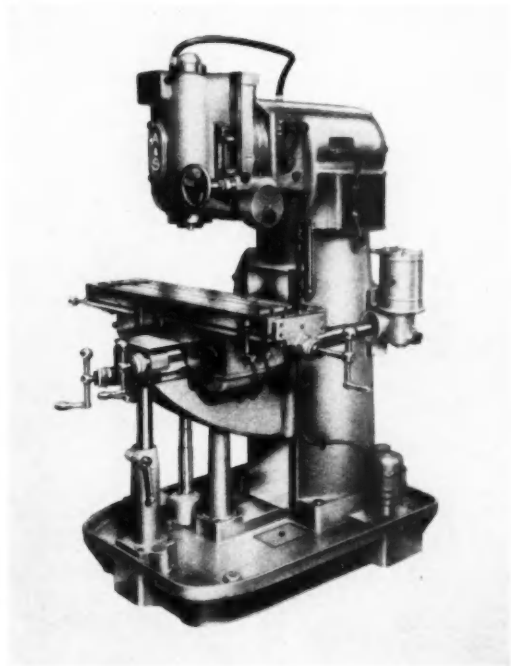

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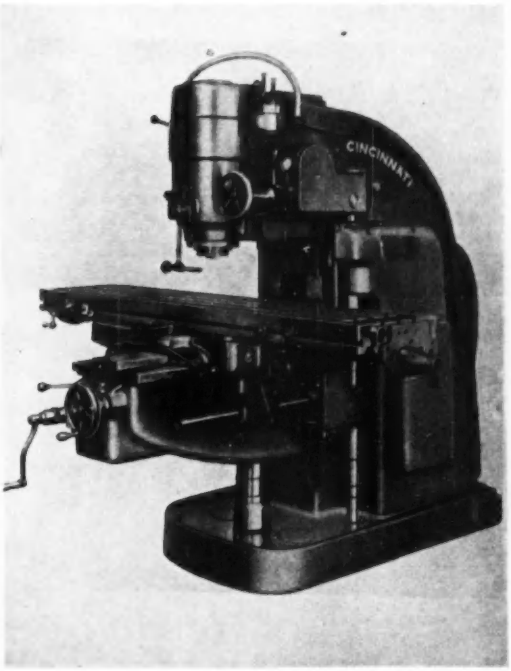

Vertical milling machines

6, **7**, **8**, **9**, **10** and **11** Continental made machines show (in varying degrees) many similar features to the ones commented upon in the previous captions. There are but few exceptions: one is the Schaublin *53*, **9**, designed as long ago as 1946, which illustrates the progressive attitude of the company, for even today there are few such examples of radical departures from tradition; another is the Gambin *1N*, **10** and **11**. This latter example, designed in 1952, is at the extreme limits of the vertical milling machine category as it combines the functions of horizontal and vertical machinery by the use of a dual function head (**10** horizontal and **11** vertical).

On most hand operated machines similar controls have a similar sense. A clockwise handwheel motion gives a movement away from the operator; levers are moved in the direction of motion required. Control locations although generally equivalent do not correspond exactly and hand operated controls are seldom identified until they become push buttons.

6 Germany MAKER *Roth Muller GmbH*; model *REV2*.
7 Czechoslovakia MAKER *Strojexport*; model *MASFUZa*.
8 Sweden MAKER *Rosenfors Brook AB*; model *RFV*.
9 Switzerland MAKER *Schaublin AG*; model *53*.
10 and **11** France DESIGNER *Roger Tallon*. MAKER *Gambin*; model *1N*.

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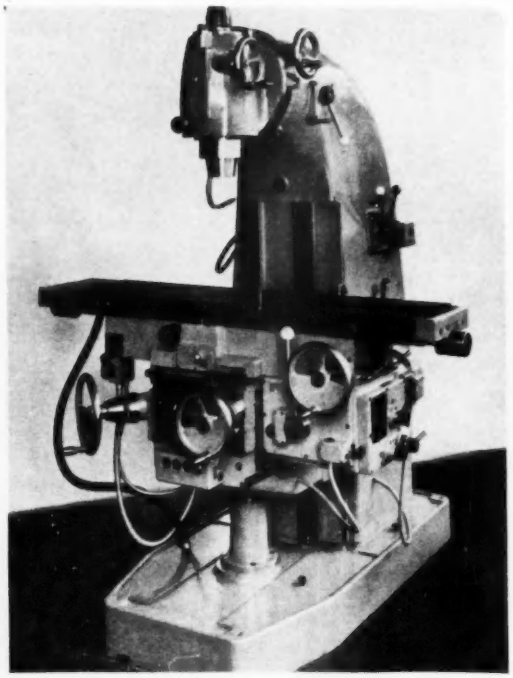

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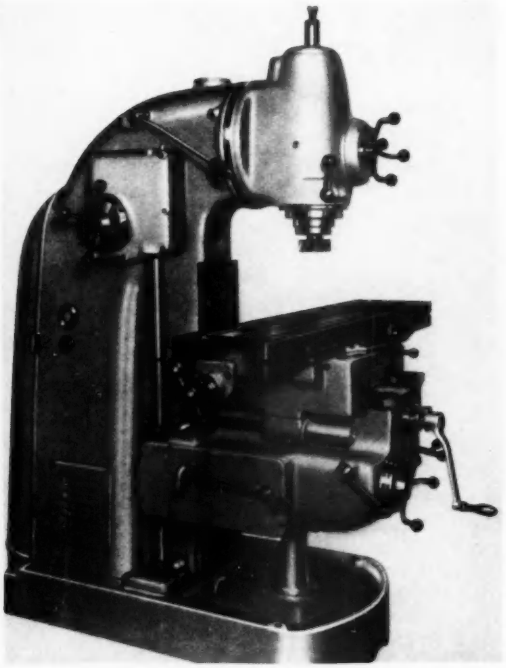

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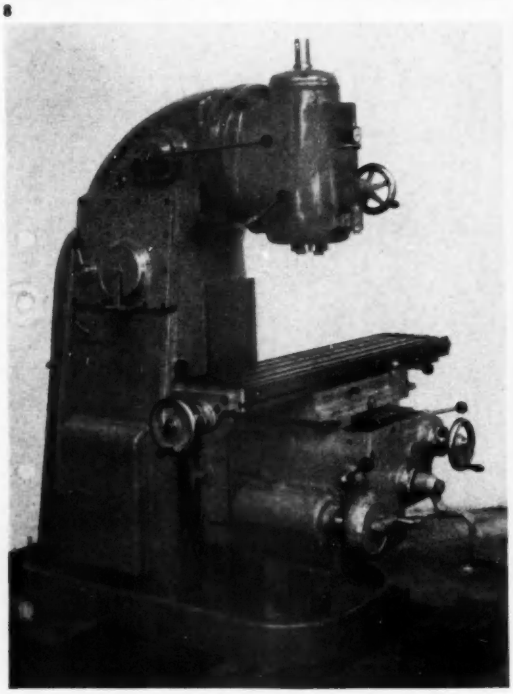

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12 This milling machine is similar to the Cincinnati mill in **5**. Eventually machines may be developed specifically for electronic computation of operation. As things are, the extra drives, control devices, etc, as well as the cabinet containing the electronic circuiting and data instruction device, stand out as unrelated elements. MAKERS *Cincinnati Milling Machines Ltd* (milling machine model *O M No 3*). *E M I Electronics Ltd* (numerical control equipment).

13 The mill, illustrated here with a prototype control console, has been adapted for electronic control by adding on power units, transducers, etc and shows the dangers of disparate design approaches. MAKERS *Kearney and Trecker* (milling machine model *2CE*). *Ferranti Ltd* (control unit).

10, 11

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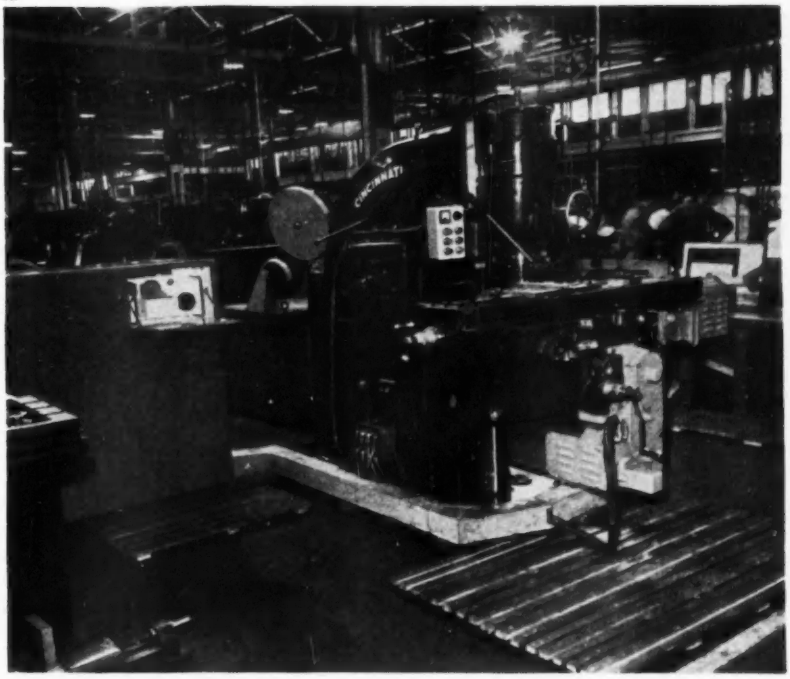

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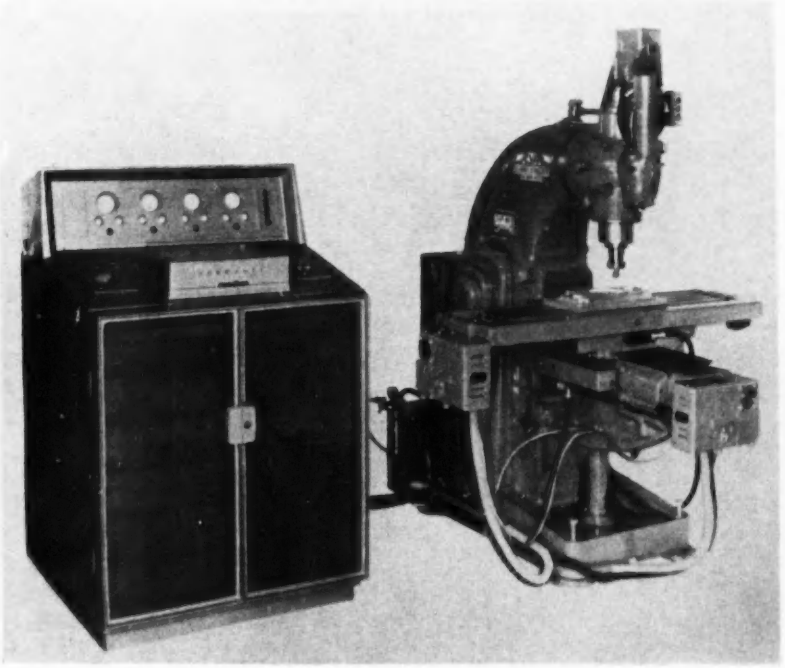
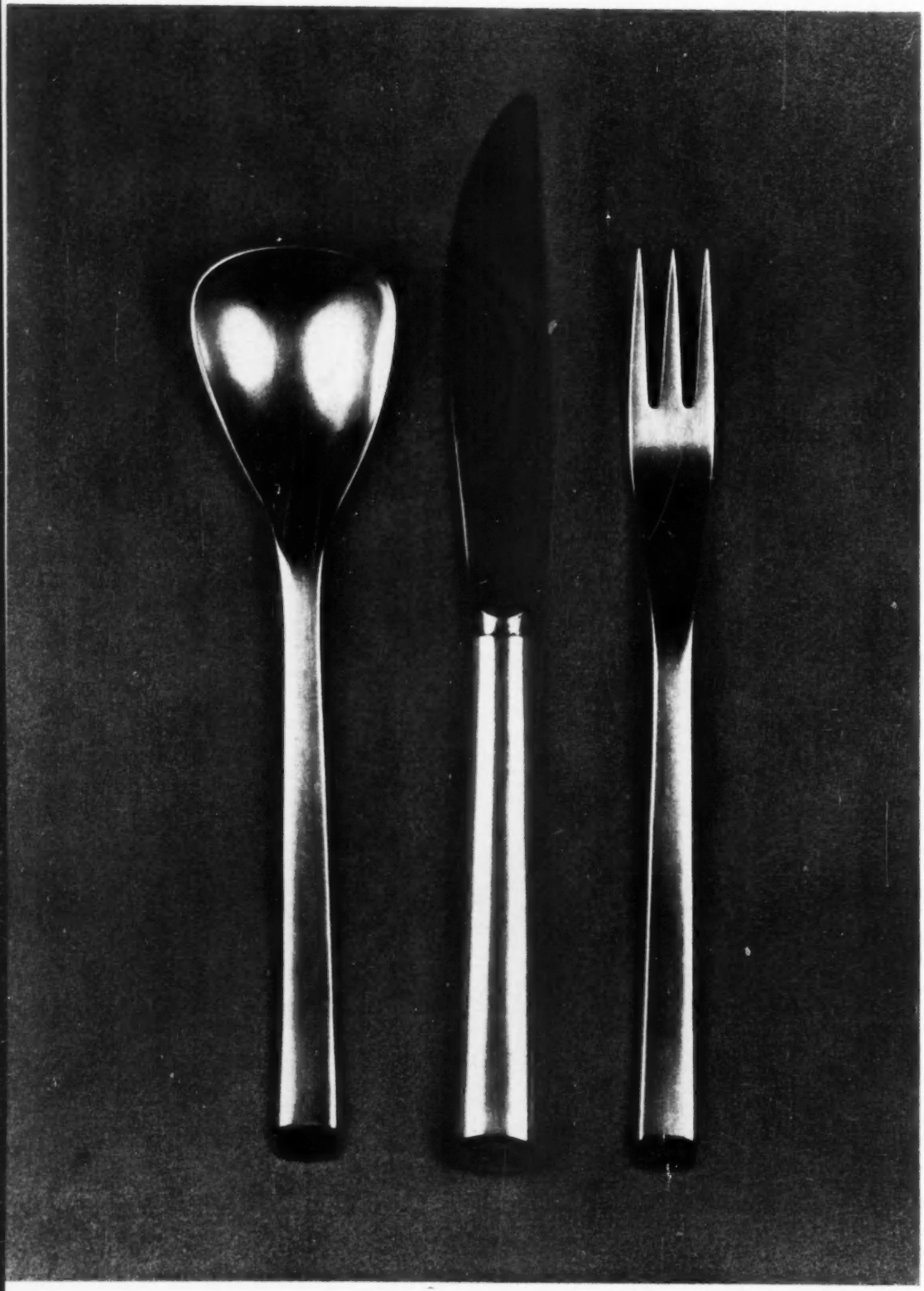


PATRONAGE PAYS

STEPHEN GARRETT



Banks have shown themselves to be particularly conservative in their approach to design, but the Ionian Bank is one of the exceptions. This firm of merchant bankers was faced recently with a move into fresh accommodation in a new but nondescript office block in Coleman Street in the City. The directors wanted surroundings that would give prestige and, at the same time, provide an imaginative atmosphere for themselves.

A feature of merchant banking business is the need for small conference/dining rooms allowing for easy transition from paper work to plate work with no break in discussion. Three such rooms were required to seat 14, eight and six people. The CoID's Record of Designers was consulted, resulting in the appointment of Tom Hancock and John Toovey of Morton Lupton as designers for the interiors generally, with Stefan Buzas and Alan Irving for some of the special furniture. These designers worked in collaboration with Howard Crane and Partners who were responsible for work within the building as a whole. Given a free hand and a liberal budget, the Morton Lupton team has designed a suite of rooms, together with the entrance corridor, to provide a rich, yet restful, background. Natural materials have been used – principally wood and marble – with white as the only paint colour. Paintings and a tapestry are to be added by the directors.

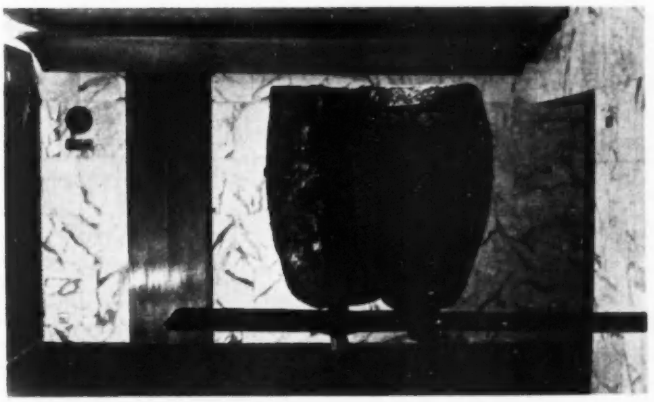
This imaginative approach by the directors did not stop at the interiors, but followed through to the tableware. Gerald Benney was commissioned to design place settings (consisting of 11 pieces each), together with entrée and large meat dishes, condiment sets and individual ashtrays, etc. These are made in sterling silver with gold tips to the handles of the knives, spoons and forks.

Mr Benney was chosen after one of the directors had seen his work at an exhibition in the Goldsmiths' Hall. This, again, is a refreshing example of a client following his own judgment. Mr Benney has been able to infuse the designs with a number of definite ideas. He has aimed at giving the work a distinctly English character, and he sees this as largely dependent on weight – both visual and physical – and the avoidance of any comparison with the ubiquitous Swedish styles. This feeling for weight, reinforced by the bold use of the hallmark, is particularly noticeable in the salt cellars and mustard pot.

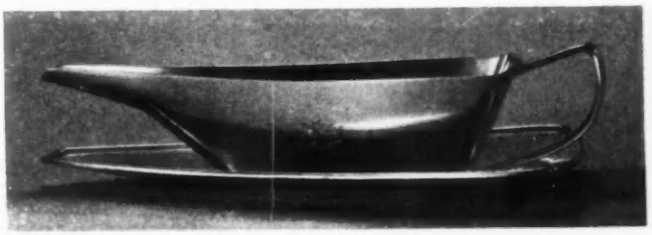
Beyond this the designs have taken the shape that commonsense suggests. For example, the spoon, a triangular form usually associated with Elizabethan silver, has proved a most satisfactory shape for its function.

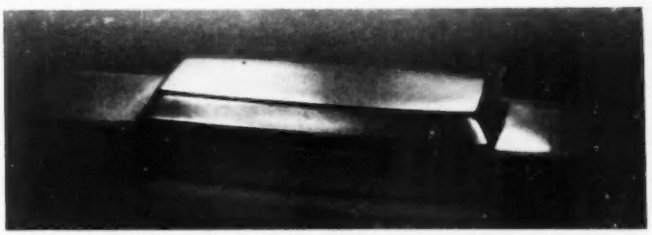
One complete set was made up in Mr Benney's workshop and was then used by the directors before minor modifications were made and approval given. To ensure that the flatware followed exactly the original approved design, the prototypes were sent to J. C. Vander Ltd who made up the 24 sets required. The other items were made up in Mr Benney's own workshop.

The result is a range of tableware that succeeds both functionally and aesthetically and which has an essentially English character. The Government should note when considering royal and diplomatic gifts for presentation abroad that while no one will ever *object* to a Queen Anne rose bowl, they might actually be *impressed* by what our designers can do now – when asked.



ABOVE Part of one of the three dining rooms for the Ionian Bank. The cast aluminium sculpture, by Hubert Dalwood, forms a screen between the dining and reception areas. The two shields can be swivelled to give a more open effect. OPPOSITE and BELOW Flatware, sauceboat, vegetable dish and condiment sets – some of the special designs Gerald Benney was commissioned to produce.





Britain exhibits abroad

LAZETTE VAN HOUTEN

overseas review

The recent British Exhibition *in New York, sponsored by the Dollar Exports Council and the Federation of British Industries, was the largest trade show this country has staged abroad. According to Lord Rootes, co-chairman of the exhibition with Sir William McFadzean, president of the Federation of British Industries, the exhibition was " . . . an outstanding success". Over 30,000 buyers registered their names and many exhibitors reported an overwhelming number of enquiries, while one firm alone received orders worth more than $400,000 for mobile hydraulic uplift ladders. But such an exhibition has more than the single function of boosting sales for those products on show ; it has the additional aim of promoting Britain itself – to dispel the idea of a Dickensian country years behind the times. How successfully was this carried out ? An American's view is given in this report by* DESIGN*'s correspondent in New York.*

1 General view of the exhibition. CHIEF CO-ORDINATING DESIGNER *James Gardner for the exhibition management, British Overseas Fairs Ltd.*

If there is one thing the American people like it is a good exhibition and display. And the recent *British Exhibition* in New York's Coliseum certainly created a good first impression. There, the biggest trade show that Britain has ever staged abroad, we Americans could see and relish many things that explain our affection and admiration for that 'tight little island'.

There was the magnificent display of the Worshipful Company of Goldsmiths and, across the aisle, the Queen's silver gilt soup tureen. A replica of the seventeenth century coffee house where Lloyd's started was to be seen, together with the casualty book opened to the disastrous day in 1912 when the *Titanic* sank. At every turn we came face to face with London streets and picturesque villages which we know so well though we have never been there. There was an intricate model of the London docks; a coin stamping machine in the Royal Mint's exhibit, where we stood in line to buy commemorative medallions; a cheque signed by Dickens and a letter in which Lady Hamilton discussed her debts. There were toffee and tea, Rolls-Royces and pictures of Princess Margaret's wedding. There were the pubs where we gathered in droves to enjoy the warm English ales.

Bigger sales to USA

But what of the declared purpose of the show? Did Great Britain convince us that its past is not the only thing it has to sell? Will this exhibition result in bigger sales of aircraft, machinery, instruments, to the United States?

The management answered "Yes". According to Denny Lamb, general manager of British Overseas Fairs, the success was "beyond expectations". Attendance was good and the management was especially pleased with the calibre of the people who came. The Trade Information Centre reported that in its opinion it was a "roaring success". At the end of the first week the car and commercial vehicle's section was said to have done especially good business. Five Rolls-Royce cars were sold that first week, and all car dealers admitted to being baffled by the fact that they had had better reaction than at the preceding automobile show.

One engineering firm which featured a hoist wafting a pretty girl skyward sold over 100 hoists as a result. A carpet importer was exceedingly pleased with his increase in business; a furniture firm succeeded for the first time in placing its line with several American stores; a fabrics firm got not only attention but business as well. The CoID's own stand, The Design Centre, London, was kept busy answering many enquiries from the trade as well as consumers, and over 1,000 enquiry cards were dispatched to retailers and wholesalers. Overall, the official attitude was definitely that the exhibition had surpassed executive hopes in attracting more American dollars for more British goods.

Problems for the designer

Thus one facet of the exhibition – to increase exports to America – was fulfilled. Now to a more detailed criticism of the exhibition itself.

Any discussion of the design must start with a denunciation of the Coliseum itself. This barn-like, ugly and badly

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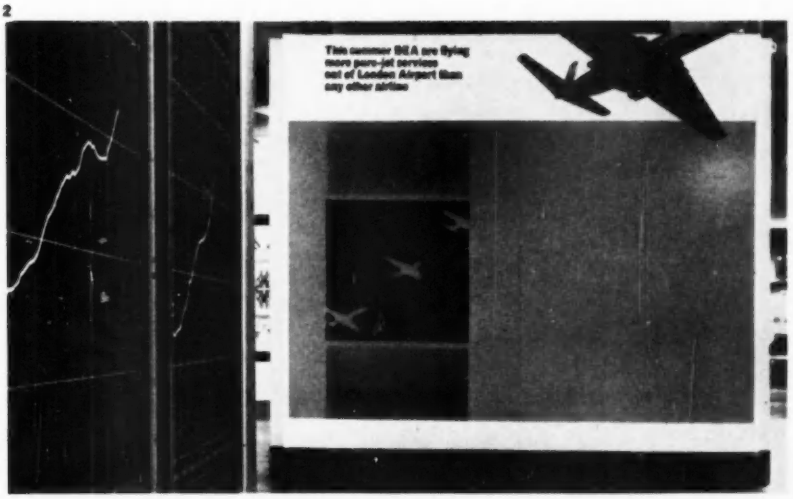

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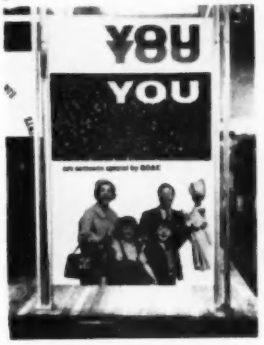

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2, **3**, **4** and **5** British European Airways, British Overseas Airways Corp and the British Travel and Holidays Association had a combined stand. DESIGNERS *Anthony Snow and Claus Seligmann (structure); David Collins (graphic design).*

Photographs **1**, **5**, **6**, **7** *and* **8** *by Don Hunstein;* **2**, **3** *and* **4** *by John Ross*

6 and **7** Co-winners in a contest to select the best designed display were, Tube Investments, **6**, and the Worshipful Company of Goldsmiths of the City of London, **7**. The contest was sponsored by the latter. DESIGNERS **6**, *Leslie Gooday*; **7**, *Alan Irvine*.

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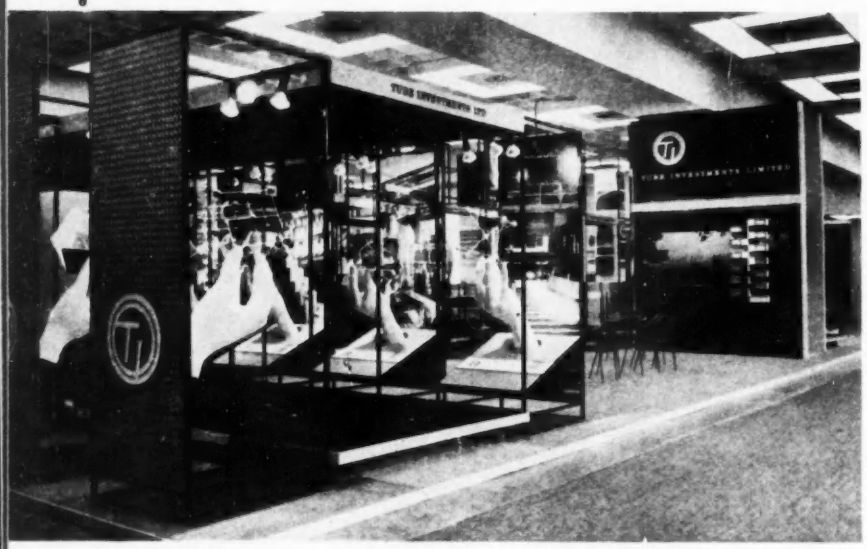

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planned building presents such insurmountable problems to a designer that it is not surprising if the result is mediocre – let alone enticing.

Another handicap – perhaps a common occurrence in events of this kind – was a limited budget, though as it was the show cost 10 million dollars. Exhibit expenses, it was felt by the organisers, were increased by the difficulties of dealing with American union labour. Labour in the United States is both costly, and, according to British standards, unco-operative and inflexible. Many discussions about this could have been heard at the exhibition and from the British point of view Mr Lamb's statement that he would be "very cautious" in contemplating a repeat performance, was undoubtedly justified.

Considering these major difficulties James Gardner, chief co-ordinating designer of the exhibition, managed to transform the consumer goods display on the second floor (which featured a London arcade) into a gay and alluring space. A simple metal structure was built from which were stretched and festooned flaming red and white bands of glass fibre fabric blocking out the ungainly height of the ceiling. Coloured cylindrical lighting fittings glowed festively above the area. On this floor the stands conformed to one basic design concept and were set far back from the passage-way. The treatment clearly defined the display areas and at the same time gave this part of the exhibition an air of sprightliness.

Variety of consumer goods

Some first class examples of design of individual exhibits were to be seen on this floor. The Worshipful Company of Goldsmiths was elegantly presented by Alan Irvine's design. The CoID's stand, while conforming to the general pattern of the main aisle, struck an individual note by extending its display in an L-shaped pavilion, with plants and low tables near the entrance. Neville Ward and Alec Heath designed this stand which showed to advantage the widest variety of consumer goods to be seen in the exhibition.

Yet there were noticeable gaps in the many categories of consumer goods on show. The latest fashions of women's wear were missing. So were men's shoes and men's apparel generally. Considering the extent of the industry in Britain there was a scarcity of dress goods. The reason given for these omissions was that this exhibition reflected the fact that it was entirely sponsored by private enterprise. Absence of Government assistance resulted in non-representation of many items of British industry.

Lack of sufficient money was cited in a discussion of the overall design with Mr Gardner. The impact on visitors at the entrance to the exhibition, for example, was less effective than it should have been because the setting, a film of the Irish Guards marching across a background of Piccadilly Circus, could not be shown continuously. The budget allowed for the installation of only one projector.

On the other hand the entrance served as a dramatic preview of Britain's achievements in the fields of science and technology. Against the background of film, models of such unique developments as the Melrose Heart-Lung machine, the Hovercraft and the Jodrell Bank telescope were raised from a darkened pit – a new exhibit device

according to Mr Gardner. A young man correctly dressed in a white laboratory coat explained (in simple terms) these newest scientific feats and prepared the visitor for the individual exhibits just inside the entrance. Here was built a rotunda within the towering space to house the Board of Trade's exhibit of scientific and technological advances.

The ground floor also had one of the most popular stands in the show, the combined exhibits of BOAC, BEA and the British Travel and Holidays Association. A simple aluminium and wood structure, designed by Anthony Snow and Claus Seligman, suspended, enclosed, encased and displayed in every conceivable form, information about the United Kingdom, including a traffic stop sign that informed the viewer that he could get to Britain for $49! (Further reading was more sobering; $49 is only 10 per cent deposit on BOAC's economy flight.)

Poor planning

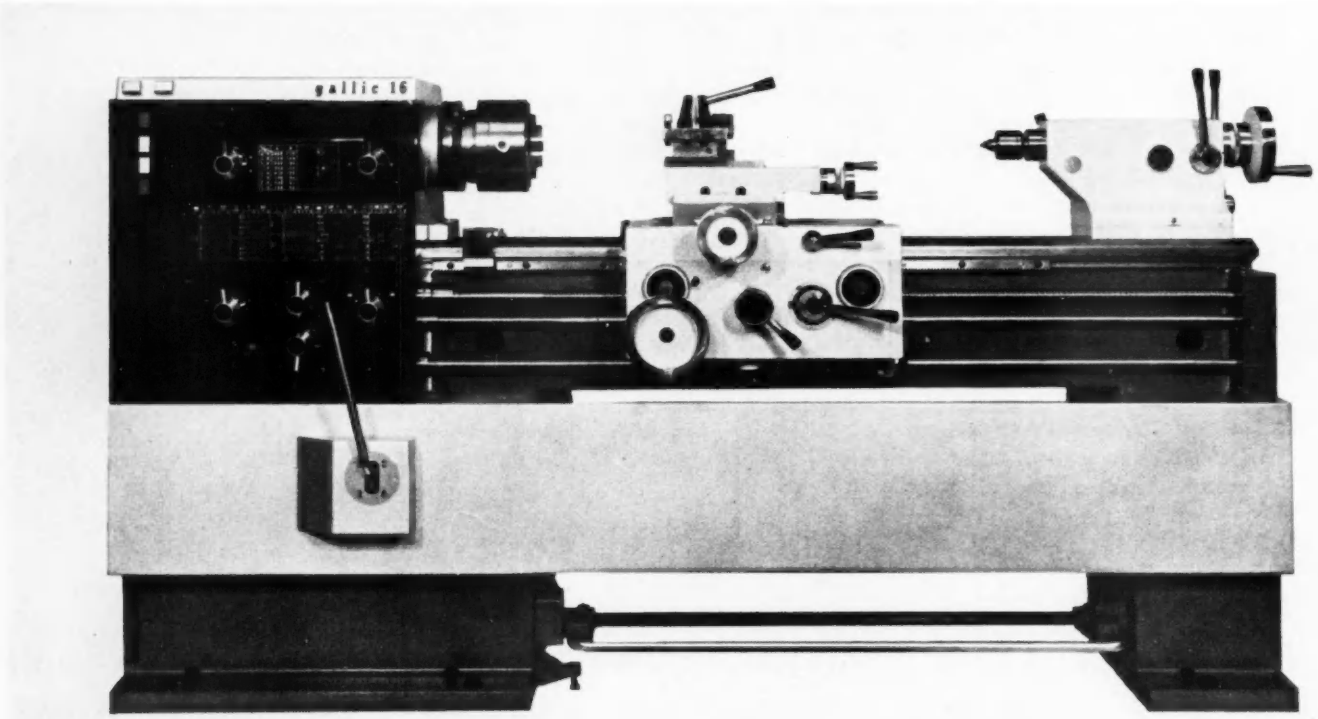
On the floor devoted largely to automobiles and machinery there were few integrally designed exhibition stands, as indeed could be said of much of the exhibition. Tube Investments was an exception. Designed by Leslie Gooday it was handsome, imaginative and made the author (who scarcely knows a tube when she sees it) stop to read and investigate.

But it was the top floor which suffered the most from lack of planning and design. One of the finest exhibits in the entire show was the British Artist Craftsmen's Exhibition and it was tucked away in a back corner. A big, bare barn of a space – with nothing done to enhance it – was the background for a distinguished group of modern paintings, sculpture, ceramics, fabrics and rugs and a sizeable collection of religious art – stained glass, altar pieces and sculpture. It was so placed that if you had not planned to see the film shows on that floor you might have missed it entirely.

Poor layout made many visitors miss this display of the arts. The pubs and the grocery store facing the elevators caught the sales but generally inhibited any further progress. It is true that visitors were lucky to get a display of the arts at all, but it is just possible that more Americans would have seen and enjoyed it if we had passed the display while making our determined ways to the pubs, the Piccadilly grocery, the Emett Railway, the Scotch Whisky Association, with its bagpipes playing, and that nice corner where *Punch* and the *New Yorker* explained the British and the Americans to each other.

8 A wide range of consumer goods was displayed in the CoID's exhibit. DESIGNERS *Neville Ward and Alec Heath.*

1



Belgium

Centre lathe redesigned

W. H. MAYALL

The *Gallic 16* centre lathe was first shown among three thousand other machine tools at the *Sixth European Machine Tool Exhibition* in Paris last year. Its design put it far ahead of other machines by the same manufacturer, Mondiale of Belgium – in fact of any of the machines on display. The design was undertaken for Mondiale by Roger Tallon of Société Technès, Paris. The general comments about this new machine add up to two related questions: are its forms appropriate to a machine tool? If so, is it, in the well-worn term, a pace-setter in the field of manufacturing equipment?

The *Gallic 16* was briefly noted in DESIGN 133/59 and can be compared to those centre lathes described earlier in DESIGN 131/49–53, so far as method of operation is concerned. It is of the standard centre lathe pattern, but having a 16-inch swing (against the 10 to 12 inches for lathes discussed in the earlier review).

There are no great functional differences between the new *Gallic 16*, **1**, **2** and **3** and its predecessor, **4**. Improvements have been made to the speed control; a foot-operated control bar has replaced a pedal; speed changes can be made while the machine is in motion. But on the whole it is possible to cross-identify the controls on the old and new machines. Broadly speaking, there are no great

1, 2 and **3** *Gallic 16* lathe. The designer's aim was to give an impression of stability and architectural unity to the machine. This has been achieved by simplifying the masses and then relating them in proportion and colour to produce a balanced whole. The machine is of cast construction apart from the long panel which so successfully defines the working area while concealing a removable swarf tray.

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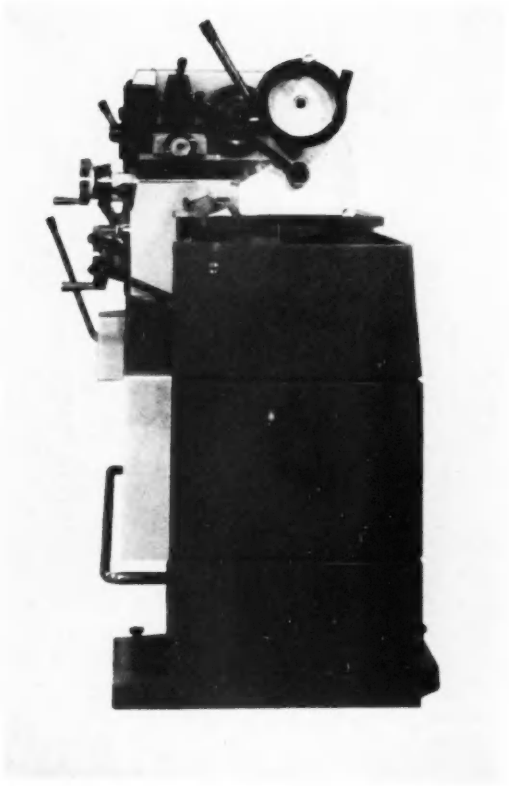

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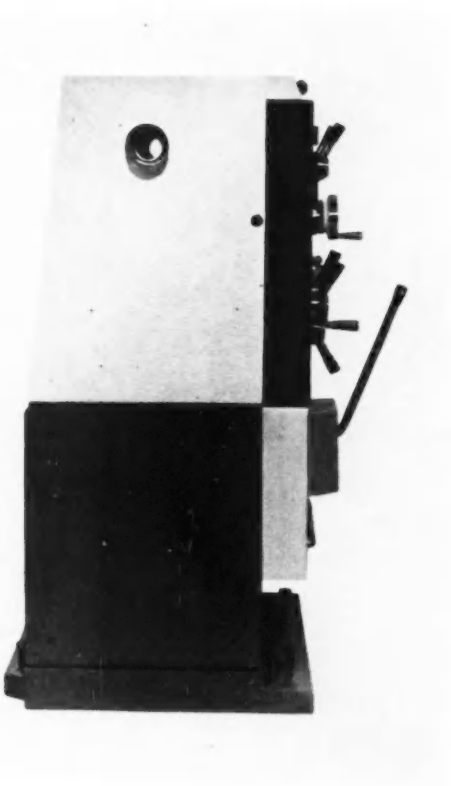

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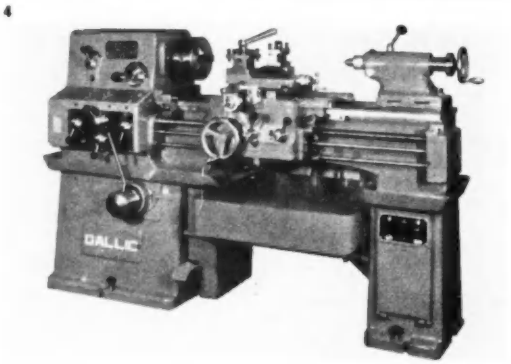

4 Predecessor to the *Gallic 16* lathe. The overall design is generally equivalent to lathes shown in the centre lathe review (DESIGN 139/49 – 53).

differences in constructional materials either, and although the plain rectangular forms suggest a fabricated construction, the headstock, bed and legs are cast; the headstock casting is internally ribbed and double-walled to obtain the necessary rigidity; the ribbed bed is triple-walled for the same purpose. Such forms show that castings can be produced unencumbered by protuberant bosses and webs and without rotund and visually weakening curvatures.

But the greatest difference has been in the designer's overall intention to simplify the lines and masses, giving the whole an impression of stability and architectural unity, each part being conceived in relation to the next.

Comments expressed at the Paris exhibition were generally appreciative of the clarity of design thus achieved. The question of appropriateness arose partly from some criticism of detail design, but mainly from the feeling that the design seemed too luxurious for the factory floor. Colour played a part here, for though it was thought that the bright yellow used on tailstock and apron might be for exhibition purposes, it was understood that this was a production colour. This was a surprising but not unreasonable choice since it draws attention to the working area of the lathe without providing a

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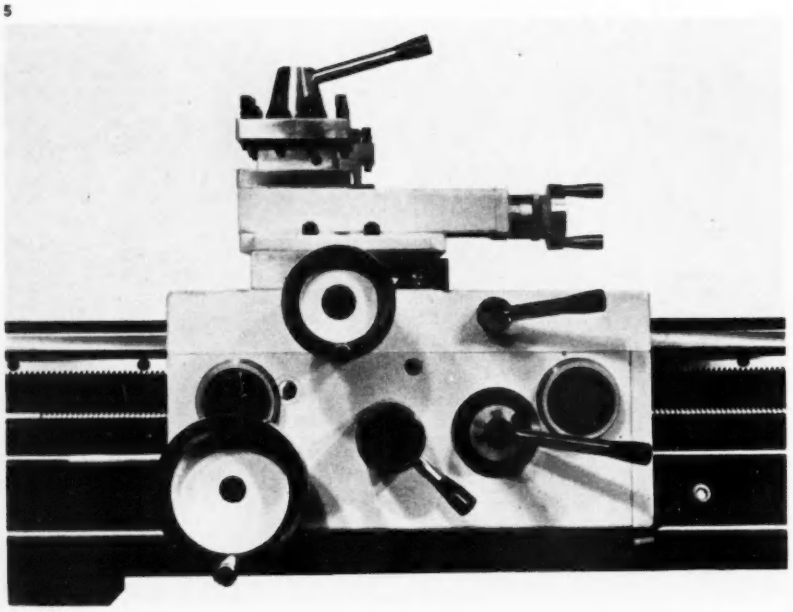

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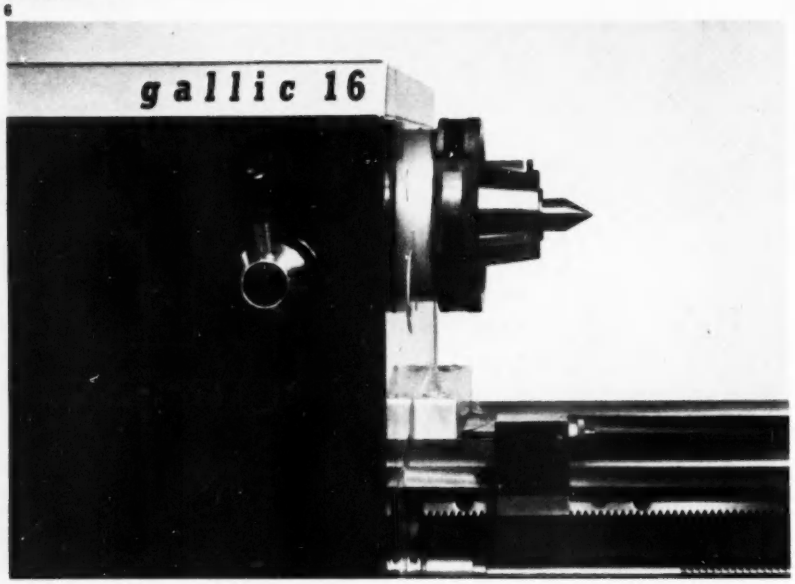

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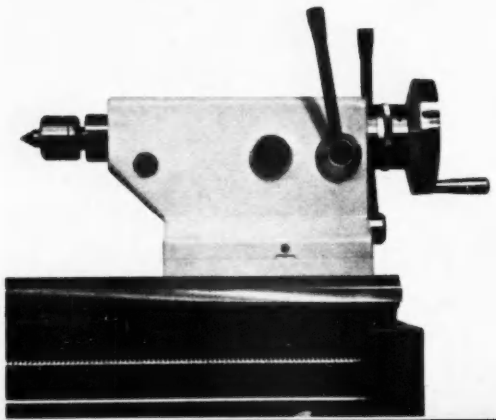


disturbing contrast of tone. For this reason the choice of yellow is better than the black used on the headstock 'control panel'.

Three details can be criticised in the design: the not so easy to read screwcutting chart on the vertical face, **6**; a lack of identification for the refined rectangular controls in the top left corner of the headstock; and the square rims of the handwheels which seemed less comfortable than the more conventional round rims. Yet despite these points the *Gallic 16* showed a refinement in design with which we have only been familiar in the best of domestic and office machinery. Some German journalists have compared its conception with that of Braun's and Olivetti's work in those fields.

Thus, returning to the question of the appropriateness of the design, this might well be answered by another. Were doubts raised merely because our sense of design values on the factory floor is different from that in office or home? The *Gallic 16* would stand out in the average factory from the grey machines in their grey setting and its suitability can hardly be measured against such old, drab standards.

When all the other requirements which are expected from manufacturing equipment are fulfilled, one can find no reason for not aiming at the new standards achieved by Roger Tallon. And since there are no valid objections to this approach, Mr Tallon's violent break from conventional practices places the *Gallic 16* as one of the most important pace setting designs in this field. Continental design critics have recognised its merits by including it in the list of *Signe d'or* awards for 1960.

5 Exceptional clarity at the carriage apron derives from producing an unrelieved area upon which well detailed controls are clearly mounted. The handwheel rims seemed less comfortable than the conventional type.

6 Though the headstock layout shows the same clarity of layout noted on the carriage apron, the vertically faced screwcutting chart seemed less easy to read.

7 Related design is obtained not only by proportioning the salient masses but by producing a common and distinctive form for all controls, as may be seen from the tailstock levers.

Berko

DECADE OF ASPEN

overseas review

This year completes the first decade of a remarkable series of annual design conferences held at an old mining town in Colorado, USA. The event is marked here in two articles which try to explain why the conferences have been so memorable for those who have attended, and so much talked about far beyond the boundaries of the American continent. The first article by Herbert Pinzke, an American designer with long associations with the Aspen conferences, takes a retrospective look over the past 10 years, pinpointing some of the more significant statements which speakers have made. The second, by Paul Reilly, director CoID, who spoke at this year's conference, sums up the achievements of a week's non-stop discussion on the theme The Corporation and the Designer.

Herbert Pinzke on Aspen in retrospect

Ten years ago, at Aspen, the first conference was convened under the sponsorship of Container Corporation of America. Aspen, Colorado, USA, where all 10 conferences have been held, is an old mining town, 7,000 ft above sea level. To get there, you can drive via Loveland Pass or Independence Pass. Both of them are exciting panoramas of the majestic Rocky Mountains. Independence Pass – 12,000 ft high is the more primitive. I recall that three years ago I waited for an hour while the snow plough cleared the road – the third week in June.

Driving from Denver, you have a mixture of fast open highways, broad vistas, rushing streams, and twisting mountain roads. The last turn in the road reveals this wonderful town that has begun a new life. Much of the charm is still in the old town and it lives happily with the good modern design and architecture of Herbert Bayer, Fritz Benedict and others.

On some mornings there are low flying clouds that drape around the mountains like a necklace. Or there are times when you are awakened by the slanting sun and you can see how Red Mountain got its name.

On the grounds of the Aspen Institute for Humanistic Studies there is the big tent amphitheatre, designed by Eero Saarinen, and nearby are several seminar buildings designed by Herbert Bayer, who has also designed the new conference hall which has still to be built.

The conferences as a whole are conducted in a rather informal way. There are formal meetings in the big tent where the speakers discuss their papers which have been distributed to the conferees before the session. Then follow the several (usually three) separate seminar discussions where any conferee is welcome to ask questions

of the speakers or make whatever comments he wishes. Before the week is very far along, even the shyest conferee finds the atmosphere conducive to active participation in the discussions. Then, too, there are the very informal sessions around the pool at the Hotel Jerome or in the Aspen restaurants – where a further exchange of ideas takes place and one meets new friends.

Top management and design

In those early days a decade ago, the title of the first conference, *Design a Function of Management*, was more optimistic than realistic. It was a wise idea of the late Walter Paepcke's, then president, Container Corporation of America, that design – good design – really required the attention of top management. The bold, imaginative steps that were necessary could only be taken by responsible top executives who were interested in the idea of a vital corporate image.

Herbert Pinzke

The second conference in 1952 again brought together people from various disciplines outside the realm of design into what Walter Paepcke referred to as the "climate for the cross-fertilization of ideas". Subsequently a committee was appointed to organise future conferences, and the success of the one in 1953 under Leo Lionni and of the one the following year under Will Burtin, Carl Maas and Gyorgy Kepes proved the worth of such meetings.

It was during the fourth year (1954) that we recognised the value of a permanent organisation and the conference was unanimous in its acceptance of this idea. An interim executive committee was elected, comprising R. Hunter Middleton, Saul Bass, Will Burtin, Harry Baum, Albert L. Arenberg, George Culler, Dan Defenbacher, William Friedman and myself. After the conference these members met and elected Bob Middleton as chairman, myself as vice chairman and DeForrest Sackett as secretary-treasurer.

So it was that a forum for discussion and cross-fertilization of ideas between designers and other disciplines was formed. The International Design Conference continues, as the stated objectives put it, " . . . to provide a forum for the study and discussion of design in its larger concept as one of the important distinguishing features of our civilization – the social and cultural technique as well as the technological one" – a place where designers, no matter what their specific profession, can meet together to discuss common problems. Many people have contributed unselfishly of their time and energy to the fulfilment of these objectives.

The potential of Aspen was recognised by Mr Paepcke. The years of growth since the Goethe Centennial when Dr Albert Schweitzer was the distinguished speaker have shown the wisdom of his foresight. Meetings elsewhere, similar to the Aspen conferences, attest to the timeliness of those first occasions and to the spread of understanding and use of design in industry, where design now functions as an active, creative partner in the planning of industrial and graphic production.

What has been said

Here are a few brief quotations from the many worthwhile remarks that have been delivered to the conferences. They reveal the range and scope of subjects that come up for consideration and discussion. Firstly, three comments on the purpose and value of the conferences:

1955 WILL BURTIN, American designer: "We are here because we have questions. We are here because we want to test ideas that may be important – to us and others. Whatever they may be, it is necessary that there be discussions, questions

Paul Reilly on this year's conference

Paul Reilly

Drawings by Ted Rand

One thing is certain: your reporter greatly enjoyed the Tenth International Design Conference in Aspen last June. The setting was magical; the weather was unusually perfect even for Aspen – around the 80's by day, with cool, restful nights. The company was as talkative and colourful as a parrot house, the required informality loosening tongues and collars alike; only Professor Northcote Parkinson was a law unto himself and sported a tie throughout.

The keynote of the conference was thus a studied casualness which extended somewhat disconcertingly to the discussions themselves, the paper speakers having in some cases done as asked by providing texts or notes for discussion, but later being told that these could be taken as read and need not be touched on again. This system, designed for the maximum flexibility, inevitably led to some hasty, half-prepared second thoughts being offered from the platform at the plenary sessions, which were all held in the great circular tent designed by Saarinen. Loose ends, of which there were plenty, were then pulled together or further apart at afternoon seminar sessions, the speakers facing a third of the membership at a time for gruelling cross-examination.

Relaxed afternoons

These afternoon sessions were the most constructive events of the week, the audiences being smaller and the speakers more relaxed. The evenings were devoted to 'voluntaries' in the late nineteenth century Opera House by different speakers or members of the conference who had slides or films to show, or activities to explain. By this means the conference heard something of the work of the Council of Industrial Design, which would not otherwise have fitted easily into the theme of the main discussions.

The theme of this tenth Aspen conference was a large and serious one: *The Corporation and the Designer – an inquiry into the opportunities and limits of action for innovators in the twentieth century technological society*. The intention was that this should be discussed by three panels, the first representing the corporation or industrial viewpoint; the second that of the designers; and the third, a mixed bag,

and agreements which may carry in themselves the seeds of new questions already. This is the continuum of living – proceeding from question to answer to new question to new answer – in an unending chain of challenges and responses . . ."

1957 SAUL BASS, American designer: "Experts from other disciplines have been invited not only to establish relationships between their data and ours, but also to help us better evaluate our activities by subjecting them to critical examination. It is also an opportunity for direct exposure to ideas born of other traditions, of other cultures . . ."

1955 S. I. HAYAKAWA American semanticist "The important thing is to come away from the conference with a fund of information – information about what people are doing and thinking, and why . . ."

During this past decade, there has been much discussion about the role of the designer in society. Where does he fit? What does he do? How do you tag a designer? This is what some of the speakers have said about him and about his business:

1956 DENNIS FLANAGAN, editor, *Scientific American:* "I like to think of the designer as an ambassador between technology and the creative disciplines of art and science. At his best the designer can make our daily environment reflect the deepest perceptions of the artist and the scientist".

1959 BRUCE MACKENZIE, editor, *IBM Journal:* "It is of crucial importance that the designer retain his identity as a generalist with specific interpretive and intuitive artistic talents, but it is also essential that he become closely associated and familiar with the specific fields for which he wishes to design. In science and industry this means a real apprenticeship in the specific disciplines as well as a familiarity with the basic products of this area".

1959 RICHARD LATHAM, American designer: "As designers, we may properly assume responsibility for goodness and badness in the work we create; we are called upon, and entitled to make value decisions. We are also entitled to a pioneering spirit and a desire to see things change for the better; we need not assume that *what is*, is always inevitable or for the best . . .

We designers, too, can begin to build a meaningful aesthetic culture if we are willing to prepare ourselves for a new learning experience, and we cannot learn unless we participate".

1960 OLLE EKSELL Swedish designer: "I was under the impression that I knew a lot about design until I was invited to Aspen and began to wonder just what I was really trying to do as a designer. Thus, before I could consider the theme *The Corporation and the Designer* I had first to straighten out my own ideas".

1960 PAUL REILLY, director CoID: " . . . the word *mobility* carries with it the related ideas of lightness, flexibility, portability and even of transience, economy and modesty, all of which have occasioned better standards of design in our age than have their opposites . . . as a key to the past 100 years and a pointer to the future, we should not lose touch with this sense of mobility either in our programmes or our products, for it is part and parcel of the philosophy of change, without which all corporations and all designers will go to the wall".

1957 EDMUND N. BACON, director of city planning, Philadelphia: " . . . it is the job of the designer constantly to set before society concrete physical expressions of fresh potential values and relationships, so that there will be continuous stimuli and rich alternative choices available".

1959 JACOB BRONOWSKI British scientist: "I as a scientist know that your job even more than mine is to make the human mind and the machine parts of the same world. We are all committed and we must not be committed to one side; we must express the humanity of man in what the machine makes as well as in what the mind makes. In the end it is not we who judge the products we make; it is the products we make which judge us".

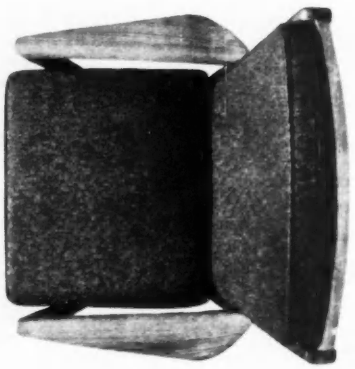
From these comments, one can readily see that much of the discussion emphasizes the need for comprehensive understanding by the designer, if he is really to fulfil the goals he has established for himself in his relationship to his client and society. This is a big responsibility.

trying to look into the future. The audience of around 350-400 was, as far as could be judged, composed mainly of youngish designers, and graphic ones at that, which led the discussions more in the direction of house styles or corporate images than of products themselves, but this was to be expected since many corporations are faced with similar graphic problems whatever the product.

The weight and scope of the theme, with its underlying social implications, afforded good opportunity for some agonising American re-appraisals of the moral basis to their affluent society and these took the conference down some engaging avenues of suspicion and speculation. Although the conference seemed, not unexpectedly, to be generally agreed on the importance of design and the designer and on the need for more active and concerted propaganda to secure his professional standing, little emerged that could provide a pattern or programme of future activity beyond the point that in a world of giant companies and corporations there is an increasing call for effective communication, for vice presidents in charge of communications to act as advocate for designers and for independent design directors or consultants who can fight the battles for the staff men at the highest level of management.

Trans-Atlantic polysyllables

One platform speaker who had made a lifetime study of communications even recommended a department of state in Washington to tackle the problem on a national scale. By that time your correspondent was vigorously nodding his agreement since his basic English was clearly no match for circuitous trans-Atlantic polysyllables and he was eagerly seeking a simpler means of communication. But it was all very lively and if nothing concrete came out of it, a lot of people of and from many parts came together in a common cause. The only absent guests seemed to be the potential opposition, the tough and unregenerate representatives of top management; though, as one business consultant suggested, they may not today be so much in need of medicine since the majority of US corporations are now ripe for good design programmes. And that alone was worth hearing.



Chairs and settees

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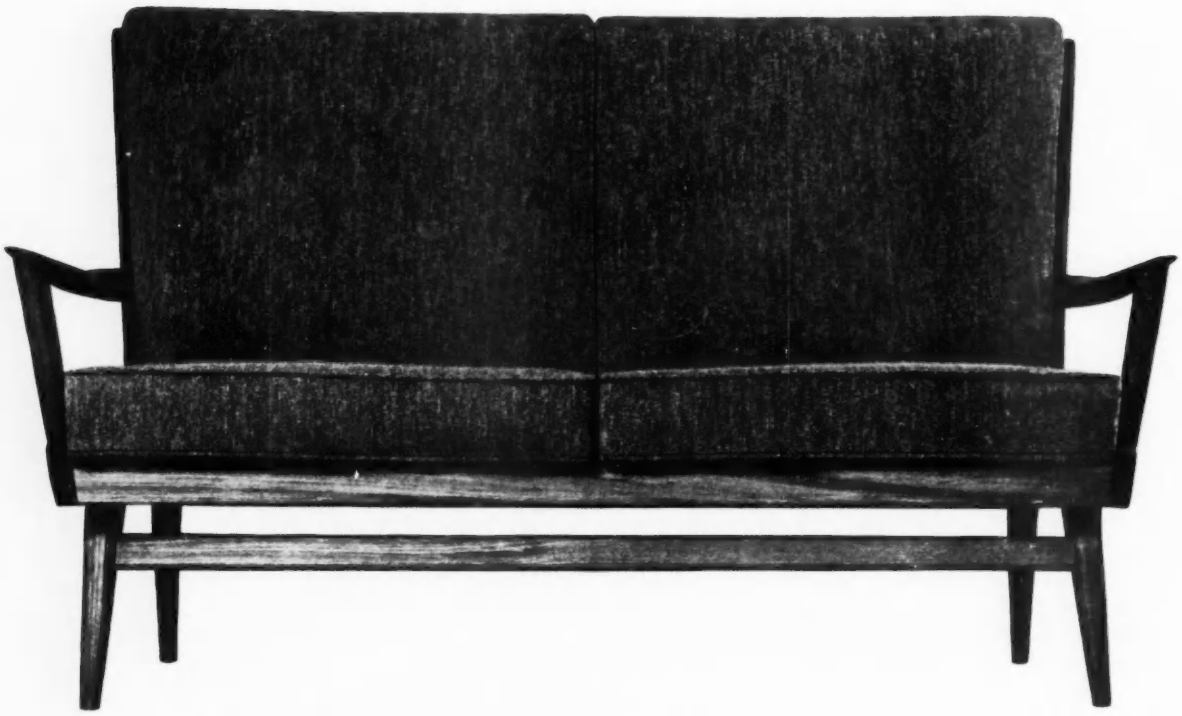

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Farm building exhibit

One impediment to enterprising developments in farm buildings has been the tendency to look backwards, or at best no further than the end of our noses. In view of the recent discussions at the CoID (DESIGN 140/50-3) it is particularly encouraging that the Ministry of Agriculture's exhibit at the *Royal Show* in Cambridge this year should have been given the title *Looking Ahead*. At this time, when many manufacturers are re-appraising their products, it is vital that the ministry should give a lead and show that it is interested in quality as well as economy.

Admittedly, the administration of the grants for improvement must pay due regard to thrift, but the farmer and the taxpayer are ill served in this case, as in others, if insistence on the lowest tender makes it unprofitable to offer buildings of higher quality in terms of versatility, convenience and standard of architecture. The ministry says it does not insist on the lowest tender if a higher price is offset by better value in these respects. The ministry's own exhibit should go some way to prompt farmers and manufacturers to trust the ministry to encourage better standards when applications for grants are made.

The three buildings in the exhibit showed how comparatively large areas can be spanned using steel, concrete, and timber with the minimum of interruption of the floor space. All were of low pitch so that headroom was fairly evenly distributed over the whole area.

The steel building, **1**, was designed by Croggon & Co Ltd, in conjunction with the Agricultural Land Service of the Ministry of Agriculture and erected by the British Constructional Steel Works Association. The span is with a cantilever projection of 10 ft to give a free covered area on the right. The narrow steel roof sheets allow versatility and look well, although the method of attachment might be neater. But in general the sections and the detailing at the eaves are well thought out.

The proportions of the concrete building, **2**, and the frames have been carefully considered and there is an interesting series of alternative cladding sheets on the back wall, but the same care has not been given to the verges and the protection of the downspouts. This building, which was illustrated in DESIGN 131/33, was designed by R. L. Williams of Kent Concrete Products Ltd. It was built by KCP and the exhibit was arranged by the British Cast Concrete Federation.

The timber building with paraboloid roof, **3**, was designed by the Timber Development Association, and made and erected by Burt, Bolton & Heywood Ltd. This is an ingenious design using shelves of timber forming a roof which gives a wide free space beneath. The inclined surfaces of the roof give the building an architectural character which would make it acceptable in a group and in the landscape.

The cost per square foot covered of these buildings is quite realistic, and the ministry is to be congratulated for having made a start in the right direction. If next year it can show how these frames can be clad in a practical and presentable manner using the best that is available from the sheeting manufacturers, farmers will have a new yardstick against which to judge their buildings. J.N.W.

The photographs are by Tessa Grimshaw.

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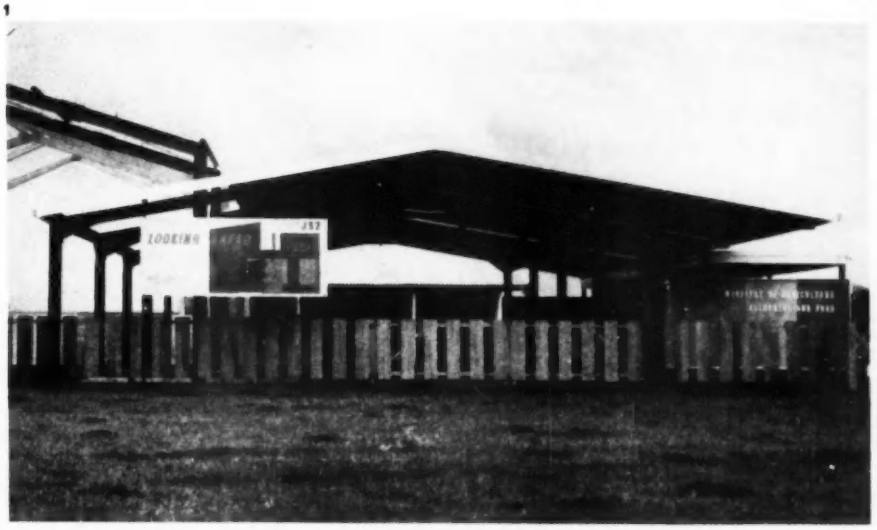

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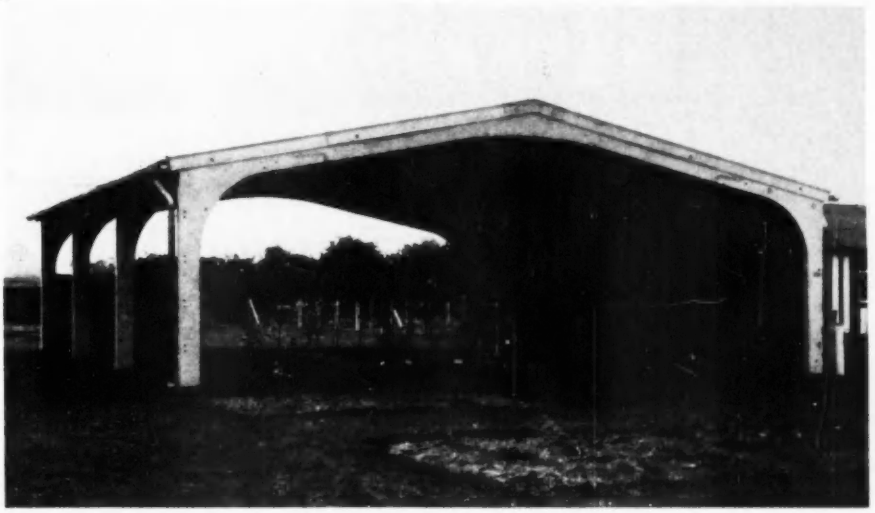

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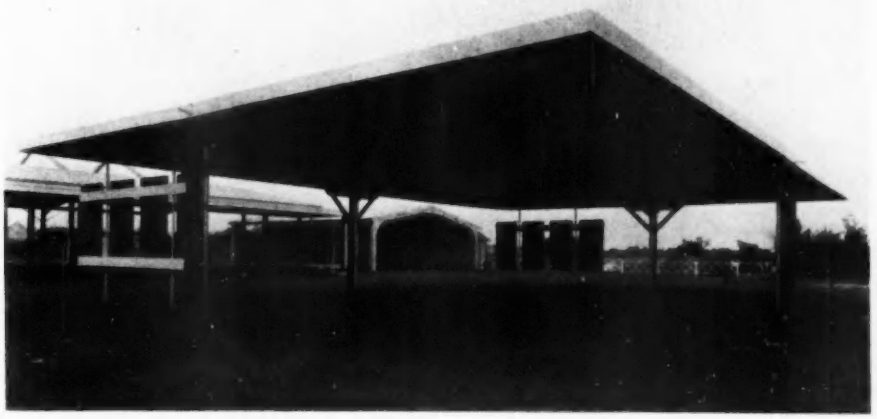

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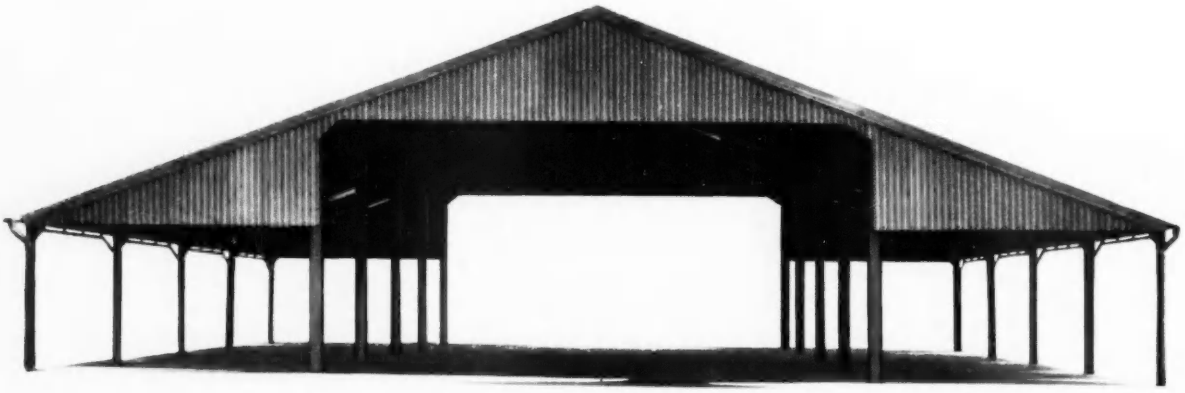

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Miscellany

Smooth sailing

Courtesy *News Chronicle*

Although British yacht design is in some respects exceptionally conservative, there has been considerable development recently in the smaller yachts, and this has brought the price range almost within reach of the average man. Dinghies and other open boats have been built by quantity production methods for several years, and now similar techniques are being introduced for small yachts. These techniques are unsuitable for traditional yacht designs, so the new designs are advanced in many respects.

One such design is the *Audacity*, designed by J. Laurent Giles and built by Walter Lawrence & Son Ltd. The *Audacity*, LEFT, was sponsored by the *News Chronicle*, which inaugurated the outstandingly successful *Enterprise* class dinghies. It is believed to be the first yacht in this or any other country to be built after intensive market research.

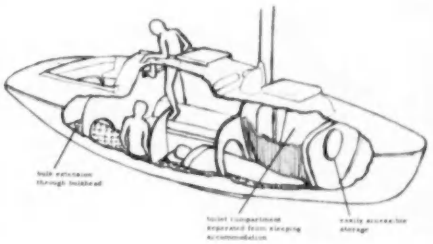
Compared with a craft of very similar size and type, built 20 years ago, the *Audacity* shows some striking improvements. The hull and deck are of cold moulded laminated ply, and the coach roof and dog-house are a one piece glass fibre moulding. In addition to the galvanised steel centre-plate a cast iron ballast-keel is fitted, yet the weight has been reduced sufficiently to enable the boat to be trailed behind a car. A lighter boat is naturally more buoyant and easily driven through the water; consequently sails can be reduced to convenient sizes. Centre headroom is vastly improved owing to the convex curvature of the decking, which also sheds water very easily. Storage space is accessible.

The *Audacity*'s layout (see sketch RIGHT), is exceptionally compact, giving four good bunks and a separate WC. The mast is easily lowered and the drop keel and rudder can be lifted so that the yacht can go under bridges and into shallow waters, and would therefore be suitable for inland waterways as well as offshore sailing. It would not only be simple and safe to sail, but a very satisfying performance could also be expected.

Perhaps the greatest fault in the design is that its accommodation is split between conflicting requirements. For instance the cabin is separated from the cockpit by a bulkhead and is entered by means of a roofhatch and steps. This would be accepted as a necessary safety measure by agile and experienced yachtsmen, prepared to sail offshore in rough weather, but would be a great nuisance for ordinary middle-aged people cruising on inland waterways.

The market research methods used appeared to assess the potential demands and desirable sales features rather than user requirements. Opinions were sought from several sources including the general public and dinghy owners, but not from regular users of small yachts, and the snags to be encountered by the different types of owners might have been worth investigation. Yet the potential demand for a yacht with the *Audacity*'s specification, designed by a world famous naval architect, and sponsored by a national newspaper, was obvious enough. In spite of the criticisms this is an extremely attractive and useful little craft and will appeal especially to those graduating from dinghy sailing.

L. E. WINGFIELD

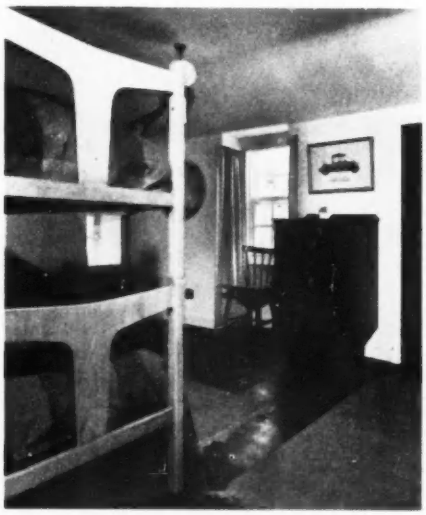


New into old

That modern designs may be used successfully in an old house has been demonstrated this summer at Dunkeld, in Perthshire, where the CoID Scottish Committee has carried out the decoration and furnishing of the Ell House, at the invitation of The National Trust for Scotland.

This 260-year old house, **2** (part of the Trust's group scheme in Dunkeld), has been restored with care so that, while nothing of its early eighteenth century character has been lost, it begins a new lease of life well adapted to the modern requirements of the family that will live in it. The operation has been an example of collaboration between two organisations which have outwardly different aims, one concerned with preserving and restoring (where necessary) good examples from the past, the other concerned with encouraging the use of well designed modern products. In practice, of course, both actively encourage interest in good design, both old and new.

1

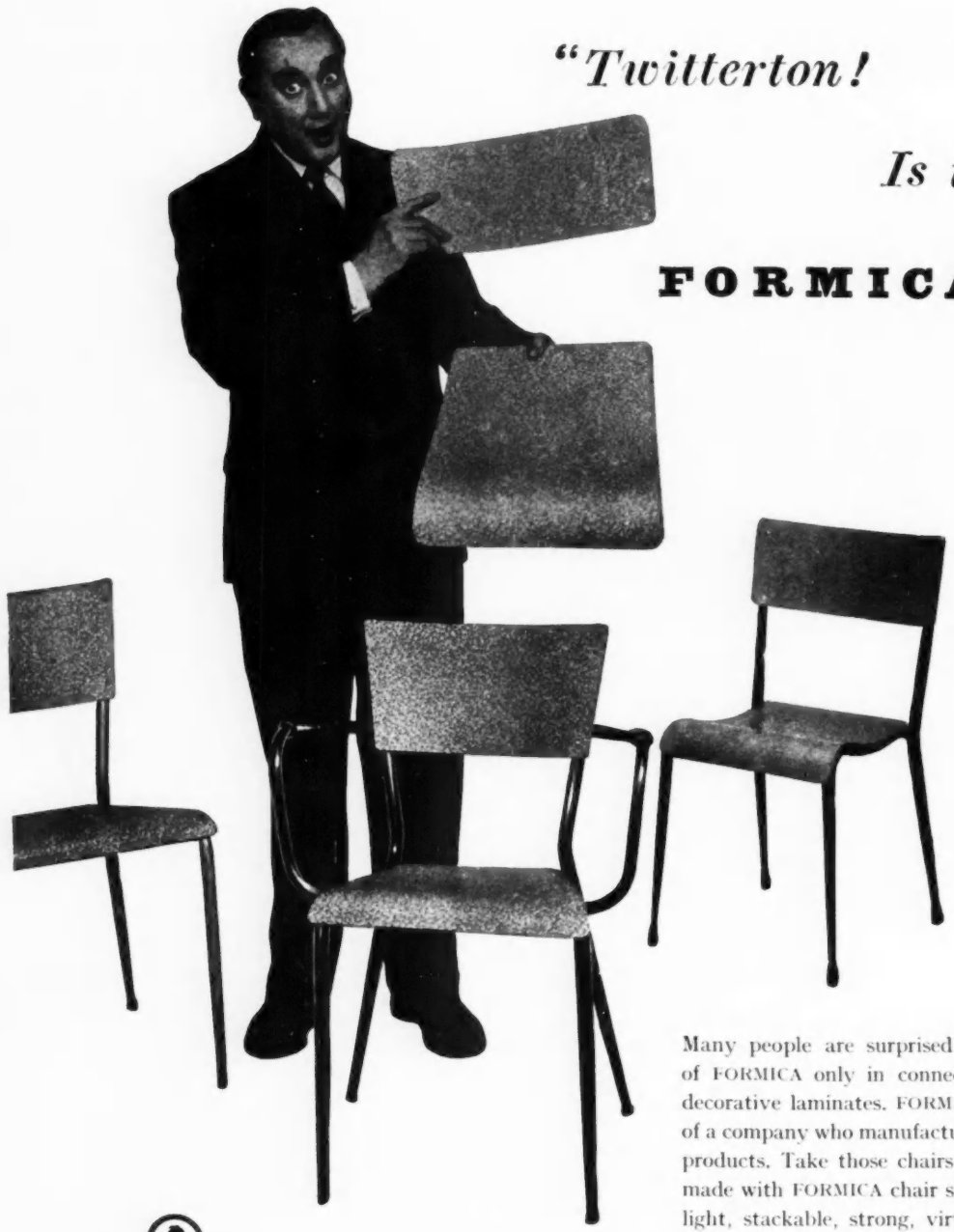


The walls of the Ell House are very thick, its ceilings are low and sometimes irregular in shape, and its rooms and their windows are small. Both wall and floor space are so limited that only in the living room downstairs, **3**, could large furniture be accommodated. In the children's room, **1**, bunk beds are used to save space, and throughout the house, the storage furniture is chosen for its compactness as well as its capacity. Wherever possible, the furniture is of Scottish design or manufacture. Light colours have been used for walls and ceilings throughout the house, with white woodwork predominating; strong colours and large patterns have been deliberately avoided.

Thomas Love & Sons Ltd, Perth, supplied the furniture, furnishings and lighting fittings, the other electrical appliances being obtained from the North of Scotland Hydro Electric Board.

2

3



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NEWS

PEOPLE

House style for hair styles

A hairdressing salon in Southampton, and a training centre for hairdressers in London, both of which have opened in recent months, testify to the expanding achievements of the Richard Henry organisation. The success of this firm is based on the sound design policy of its managing director, Richard Conway, effected through the enthusiasm of its architect designer, Kenneth Gibson. Mr Gibson, 33, trained at the Regent Street Polytechnic. While still a student he was introduced to Richard Conway by his wife who was then a receptionist at a Richard Henry salon. To help out the problems of living off an education grant, Mr Gibson was naturally glad to accept Mr Conway's invitation to design some alternative window displays and modify the interiors of the three salons which at that time formed the Richard Henry organisation. 1951 marked an important turning point in the development of the Richard Henry group. Mr Conway had by then realised the need of a fashion conscious younger public for natural hairstyling, easily obtainable from an immediately recognisable chain of salons. In effect, this meant the mass production of hairdressing styles and the establishment of a house style.

Kenneth Gibson at the Richard Henry Training Centre. Photograph by John Garner.

In Kenneth Gibson, Mr Conway found a personality sympathetic to this idea, and following successful co-operation in a number of small alterations to the salons, Mr Gibson was asked to join the firm as full time architect designer in 1953. Since then, the Richard Henry organisation has grown to a chain of 25 salons spread all over the country, and with two shops in Rome. The design of all these was carried out by Mr Gibson, in the first few years single handed, and latterly with a team of three, consisting of another architect, an interior designer and an ex-art teacher. The design team is responsible for every aspect of the firm's visual presentation which includes, not only the architecture and furnishings of the actual salons, but also all the firm's advertising and publicity. As would be expected, with such a co-ordinated design approach, the impact of the Richard Henry organisation upon the general public has been considerable.

The façade of the new Richard Henry training centre in Baker Street, London.

Mr Gibson is directly responsible to a board of directors for all his design recommendations. Although certain requirements remain the same in every salon, he is adamant that each salon is considered as a separate problem. Nevertheless, a pattern of design does emerge upon examination. Hard wearing surfaces such as mosaic in areas where water and dyes are used; easily cleaned slightly softer surfaces such as PVC or Formica, where hair is cut and styled; and soft, relaxing surfaces, carpets, soft upholstery and fabrics around the drying unit. In his use of colour Mr Gibson prefers neutrals, black and white for permanent fixtures, such as floors and equipment, with brighter colours for changeable items such as upholstery, curtains and odd walls. Mr Gibson also likes to use enlarged photographs of sculptures and paintings on the walls. In the Southampton salon, a Modigliani head, blown up to enormous size (it has, incidentally, a very formalised hairstyle!) reflects the ego-boosting associated with female hairdressing.

Part of one of Richard Henry's newest salons, recently opened in Southampton.

For those items of equipment which must be standardised, immense trouble is taken to ensure that they will satisfy the assistants who use them. For instance, in order to arrive at a suitable design for a reception desk, the organisation held a meeting of 50 to 60 receptionists from all over the country, to consult with Mr Gibson on the best practical solution. Perhaps the most vivid example of how good design can help a business is seen in one of the latest Richard Henry posters, an advertisement for student hairdressers. This poster shows the façade of the Baker Street training centre, ABOVE, and it has resulted in more applications for jobs than any other advertisement issued by the firm. CHARLOTTE MAYER

Appointment at Ulm

At 38, L. Bruce Archer is one of this country's most intelligent and stimulating design critics, and his appointment as a guest professor to the Hochschule fur Gestaltung at Ulm is a pointer to the growing recognition of his ideas in international design circles.

Mr Archer is by training an engineer, and he had several years' experience in various kinds of engineering posts before he turned to design criticism and teaching. His association with the LCC Central School of Arts and Crafts began in 1951 when he was appointed part time lecturer in the school of industrial design (he became a full time lecturer in 1956). For the past 10 years, as he points out, his time has been spent "talking to industrial designers about engineering, and talking to engineers about industrial design". During this time his theories on design training have gradually crystallised. His is essentially a practical approach – his students are trained to design for production in the widest possible sense; their considerations go beyond the basic problems of designing for machine production; they

continued on page 83

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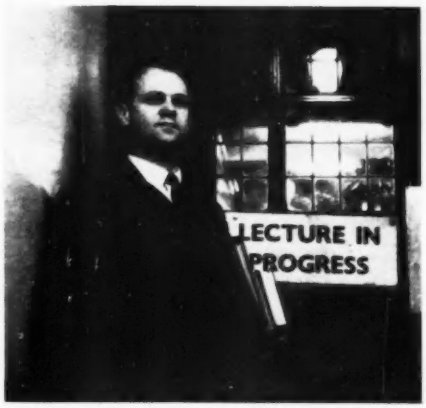
take into account the whole question of marketing, designing to a price and the implications of the product at the point of use. It is these aspects of design (the way it can affect the pattern of living) that Mr Archer intends to stress at Ulm – ie that the designer should be creating a man-tool-work system and that the most successful design is the one best adapted to human use.

At Ulm he will be lecturing for four months in the industrial design department on design criticism and design analysis. His theories on design criticism have been put forward in the articles he has contributed to DESIGN during the past seven years; design analysis is, of course, an approach to design criticism that he has developed specifically through this magazine.



L. Bruce Archer at the Central School. Photograph by John Garner.

EXHIBITIONS

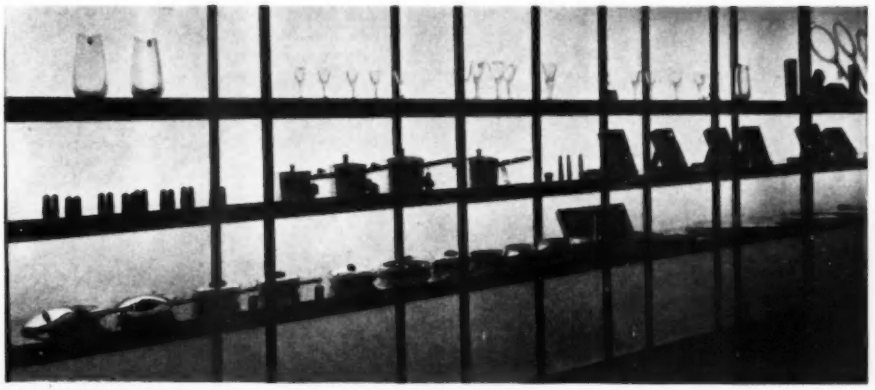
Better litter bins

The exhibition of selected designs submitted for the litter bin competition, organised by the CoID in association with the Ministry of Housing and Local Government, and the Department of Health for Scotland, opens on October 6. More than 100 entries were received. The exhibition will be held in the Victoria Embankment Gardens (Whitehall section), and it will close on October 20.

Good design in the West country

The Design Centre comes to Bristol which is being held at Jones & Co Ltd, a Bristol retail store, this month, follows the pattern of similar CoID displays in provincial centres. At the invitation of Jones & Co Ltd some 450 items have been selected from 'Design Index' for special display in the store.

Among the supporters of the exhibition is the Bristol Building Centre, which has its own permanent design exhibition serving much the same purpose as The Design Centre in London (DESIGN 140/67). In fact, although it has no connection with the CoID, the Bristol Design Exhibition shows products which have been selected from CoID's 'Design Index'. This is an extremely valuable extension of the Council's work by a private body, which cannot fail to develop a more discriminating attitude among the shopping public. Bristol is to be congratulated on this venture, and the organisers' generosity in providing a special window to tie up with The Design Centre display at Jones & Co reinforces these common objectives which link the two exhibitions.



CoID in Tokyo

An exhibition of British consumer goods was held in the Shirokiya department store in Tokyo recently (DESIGN 138/73). *Some of the products on show were selected from the CoID's 'Design Index' by Sori Yanagi, the Japanese designer and further items were from Woolland's, Liberty's, and the John Lewis Partnership. All the products were on sale in the store, and most of them were sold on the first day. The exhibition was seen by over 35,000 people.*

At home . . .

Public Works and Municipal Services Exhibition, Olympia, November 14 – 19.

Furniture Show, Earls Court, January 30 – February 11, 1961.

International Gifts and Fancy Goods Fair, Blackpool, January 30 – February 3, 1961.

. . . and abroad

Salon des Arts Ménagers, Geneva, October 26 – November 6 (apply Secretary-General, Salon des Arts Ménagers, 1 rue du Temple, Geneva).

National Exposition of Power and Mechanical Engineering, New York, November 28 – December 2 (The Show Manager, International Exposition Company, 480 Lexington Avenue, New York 17, NY.).

International Trade Fair, Tokyo, April 17 – May 7, 1961 (Tokyo International Trade Fair Commission, c/o, Economic Bureau, Tokyo Metropolitan Government, Marunouchi, 3-chome, Chiyoda-ku, Tokyo).

Caravan display

The organising and exhibition committees of *The International Caravan Exhibition*, which is being held in Olympia from November 30 – December 6, are instituting a stand design competition. Trophies, specially designed for the occasion, will be awarded to the best stands in various sections. This year's jury includes Paul Reilly, director CoID, James Holland, president of the SIA, John Reid, architect of the *International Caravan Exhibition*, and W. R. Bowden, marketing director, Horlicks Ltd.

MISCELLANEOUS

Design course for engineers

Last November the CoID arranged a course on design appreciation for student apprentices at Hoover Ltd (DESIGN 135/69). The success of this experiment has prompted the CoID to sponsor similar courses for junior and senior engineers in both the light and heavy engineering industries.

They will be aimed at developing interest in industrial design, and they will also serve to identify design ability in course members.

The next course, for junior engineering personnel, will be held near London from November 1 – 4, and December 6 – 9. Like the Hoover course it will consist of the two four-day residential periods, separated by an individual study period. The cost will be 35 gns per student. Further details are available from Miss Sydney Foott, Education Section, CoID, 28 Haymarket, SW1.

Memorial fund

The William Morris Society is opening a memorial fund in honour of Peter Floud, who died recently (DESIGN 136/63). The society aims to offer a prize of £25 annually for the next five years, for an essay on some aspect of William Morris' work. The prize winning essay will be published each year, and it is hoped that the essays will be produced eventually in volume form.

Donations from those who wish to contribute to the fund should be sent to Freeman Buss, Honorary Treasurer, The William Morris Society, 35 Hendon Avenue, London, N3.

A folder containing tributes to Peter Floud, a list of his published writings, and a copy of his last publication *The Wallpaper Designs of William Morris* is available from the Hon Secretary, William Morris Society, 260 Sandycombe Road, Kew, Surrey.

Successor to the Gaiety

DESIGN must join the chorus of disapproval which has recently been raised over the new headquarters of the English Electric group of companies.

In tune with its advanced research into electrical appliances of all kinds, including aircraft, there is probably some truth in the statement issued to the Press that "technically, the building is the most modern in the country" – if this is taken to mean

continued on page 85

Instrument cases—perfection in protection and presentation.

Portable tape recorder —in tune with modern design.

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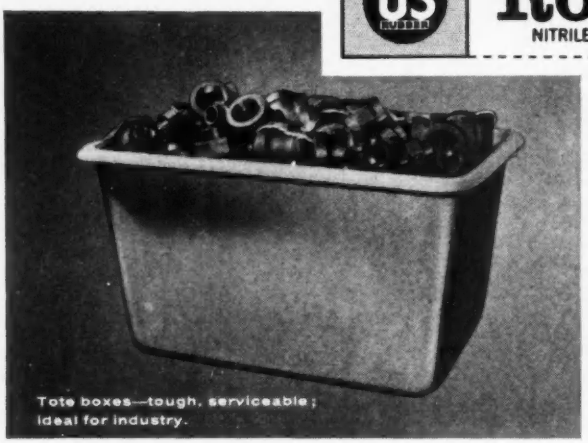

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scientific control of services, and doors and lifts which operate by electronic control.

But the design of the building itself reveals all the usual weaknesses of most of London's new offices – flag-waving and trumpet-blowing at the cost of a sensible plan, regard for materials, and awareness of new techniques, not to mention failure to consider London's skyline and its planning problems.

Internally the English Electric building, with its luxurious carpeting, bleached pine and Chippendale does nothing to offset its failure as architecture. Perhaps this was to be expected after the architectural competition for a design for these offices had proved to be abortive.

The Gaiety Theatre was opened in 1903 and demolished in 1957. The new building seems more appropriate to the days when the Gaiety flourished than to 1960. English Electric, a leading firm in so many fields, might have been expected to do better.

Stress analysis

A joint British committee for stress analysis has recently been formed to represent the interests of Great Britain in the field of stress analysis at the periodic meetings of the Permanent Committee which are held in Europe. (Membership of the Permanent Committee is open to all West European countries).

A. F. C. Brown of the National Physical Laboratory, has been elected the first chairman of the committee. Further details are available from the Institution of Mechanical Engineers, 1 Birdcage Walk, London SW1.

Manchester building centre

The new Building Centre which was opened in Portland Street, Manchester recently, is operated by a body representing architects, quantity surveyors, builders and civil engineers. Its aim is to provide architects and the public with information about available building materials and components, etc.

The display is in no way selective, and the centre's policy is to inform (rather than advise) on available products. Wall space is sold to manufacturers, and firms making similar products are sited near each other. Within each display, however, manufacturers can exhibit any type of product from their ranges, so that one drawback to the display is the unsystematic grouping of products.

Again, the centre's policy of impartiality makes it difficult for those seeking building information to select the best available products to meet their specific requirements. The centre, however, will exhibit new developments whenever possible, and arrange lectures and special exhibitions on the technical, educational and aesthetic aspects of building.

Part of Manchester's new building centre.

Post office conversion

A view of the interior of South Molton Street Post Office, London. This is the first of six older buildings to be modernised under a new scheme to make post offices more attractive to customers and staff. The programme, costing about £300,000 annually involves the conversion of 100-150 premises a year. The interior at South Molton Street was designed by Sir Hugh Casson, with Professor Misha Black and Alexander Gibson of Design Research Unit.

House style to come

Cox & Co (Watford) Ltd has appointed Henrion Design Associates to act as consultant on the creation and carrying through of a new house style for the firm. This will include stationery, transport, as well as products.

LETTERS

Art school editorial

SIR: I do not think Robin Darwin should have used your leader column (DESIGN 139/21) as an unpaid advertisement for the (alleged) achievements of his school in the training of industrial designers.

In any case, is there any truth in his rather arrogant assertion that "an astonishing revolution . . . has gathered a powerful impetus since the war, largely as the result of the lead given by the Royal College of Art". After all, as you yourself pointed out in an article *Training Product Designers* (DESIGN 112/27 – 45): "The Department of Industrial Design at the LCC Central School of Arts and Crafts is perhaps the most firmly established since it has developed continuously since the war without interruption . . ." The Department of Industrial Design (Engineering) at the Royal College of Art has only been in existence since 1953, and by 1958 had only produced five graduate industrial designers. Not a very significant contribution to the "astonishing revolution".

Apart from the facts, it is surely in questionable taste for the principal of a leading art school to be allowed to blow his own trumpet in an editorial which otherwise raises some important issues.

I hope you will find space to print this protest in your correspondence columns (to which, by the way, such prejudiced statements as Mr Darwin's should have been confined).

WANDA WISTRICH
13 Oakley Square
London NW1

Editor's note: When Robin Darwin wrote that "around 60 specialist designers accept very well paid posts (in industry) each year", he made it clear that he was using the term 'industrial design' in the wider sense, ie design for industry. This includes such things as furniture, textiles, ceramics, industrial glass, fashion, etc. Miss Wistrich well knows that the Royal College of Art was reorganised in 1948 to give full weight to these industrial subjects. The article in DESIGN which she refers to concerned engineering products only and the title *Training Product Designers* was carefully chosen to avoid confusion on this point. She can hardly imagine that Mr Darwin was implying that around 60 *product* designers are trained each year at the Royal College of Art. In addition Miss Wistrich has selected her facts concerning the number of graduate designers to give a misleading impression. The passage from the same article *Training Product Designers* is quoted here to give the full picture: "10 diplomas (DesRCA) have been awarded in the product design department since 1953. Of these, 5 were awarded in wood, metals and plastics (not furniture) during the transition period before the new department was fully established".

Promoting dental hygiene

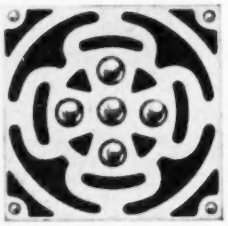
SIR: I should like to congratulate you and your authors on the interesting and stimulating article on *Mouth Cleaning Devices* (DESIGN 139/24 – 33).

As your article shows, there are available a large

continued on page 87

DECORATIVE SCREENING

for the modern interior



This elegant room divider is a striking example of the use of Harvey perforated metal and plastic coated wirework. As shown in the ¼ size illustration on the left, pattern No. 1642 is a combination of perforation and embossing, and is one of thousands of patterns for which Harveys hold dies. Four other examples are shown below, also ¼ size.

Small, medium or large scale panels can be produced in most metals and in various gauges. Certain patterns can also be produced in plastics and other materials.

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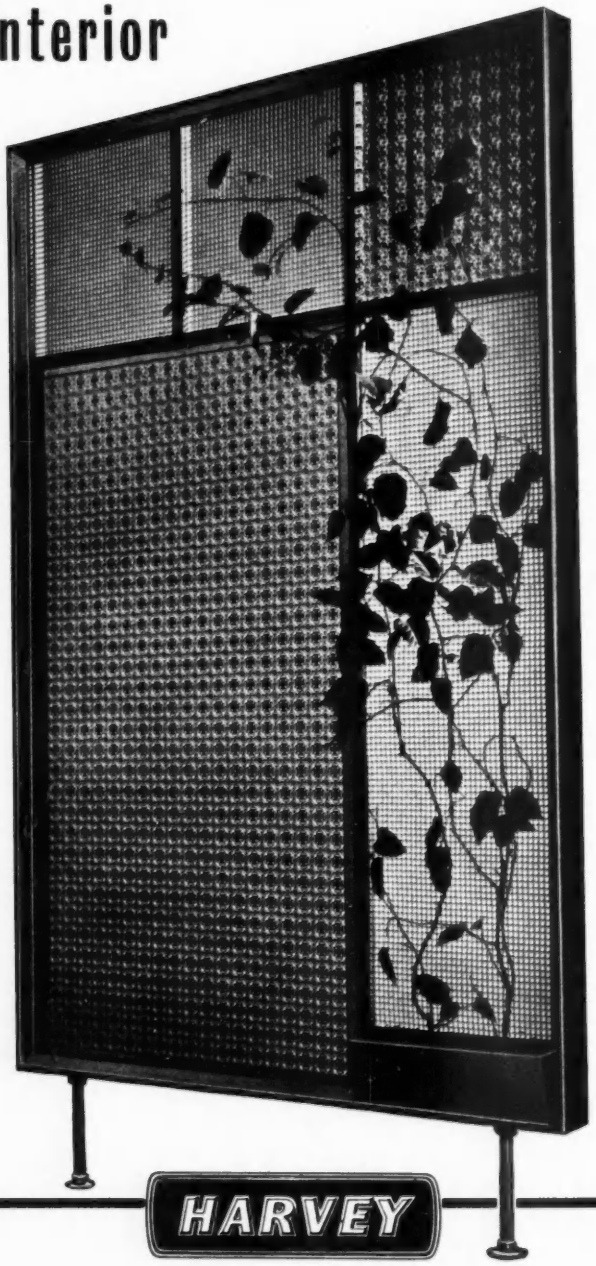
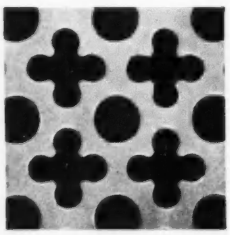
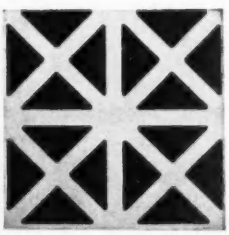
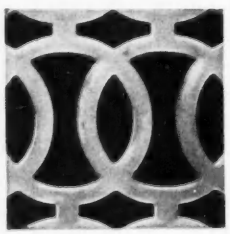
FULL TECHNICAL SERVICE is offered to designers contemplating new applications of these materials.









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number of toothbrushes which the majority of the members of the profession consider satisfactory, though you do well to draw attention to the fallacies attached to the unusual designs which are produced from time to time.

The real problem seems to be to increase the use of the brush for, as you have no doubt found out in your researches, the *per capita* sales figures are woefully low. This might well be the way in which design could help, for I think you will agree that attractive presentation of an article is very pertinent in increasing its sale.

A. BRYAN WADE
Director
Department of Periodontology
The Royal Dental Hospital of London
Leicester Square
London WC2

Clock conscious

SIR: I do not think there can be any dispute among design-conscious people that the standard of design in the British clock industry as a whole is exceedingly low. There are a few exceptions. Two firms whose clocks seem to me to be of entirely satisfactory design are Baume & Co Ltd, and Gent & Co Ltd. As for the rest of the industry, one finds nothing but bizarre and absurd shapes, flashy and unsuitable materials, poor colours, excessive decoration – and such childishness as a multitude of stars on the face of an alarm clock. Hands are often thick and graceless. Numerals both luminous and non-luminous are not simply indifferent but unbelievably bad. On a modern clock face you can find some of the most grotesquely designed numerals, often almost unrecognisable as though someone had gone out of his way to invent an entirely new shape. The calligraphic and typographic revolution of our day seems to have by-passed the clock industry.

This must seem a very gloomy view, but as I have said, few design-conscious people would disagree with it. The clock industry seems to be dominated by a few large producers and one has the impression that they are not even aware that a design problem exists. I can hardly think that they employ trained designers.

S. C. SUTTON
24 Stanley Hill Avenue
Amersham
Bucks

Carpet success

SIR: I would like to take the opportunity of letting you know that *Mandala*, the design by Audrey Tanner which gained a *Design Centre Award* last year (DESIGN 126/46) is proving an immensely popular pattern. It has already sold in considerable quantities, both in the standard blue and red colourings, and in a number of variations which have been done to meet special requirements. In addition, we are receiving enquiries for it from all over the world, including countries behind the Iron Curtain. It may be gratifying for you to know that its selection has been approved and confirmed by all sections of the community, both designing, selling and buying.

PETER ANDERSON
Vice-chairman
The Carpet Manufacturing Co Ltd
Kidderminster

Early ergonomics

SIR: In recent years there has been a great deal of interest in the subject of ergonomics, and in view of this, it may prove interesting to look at a much earlier example of applied ergonomics.

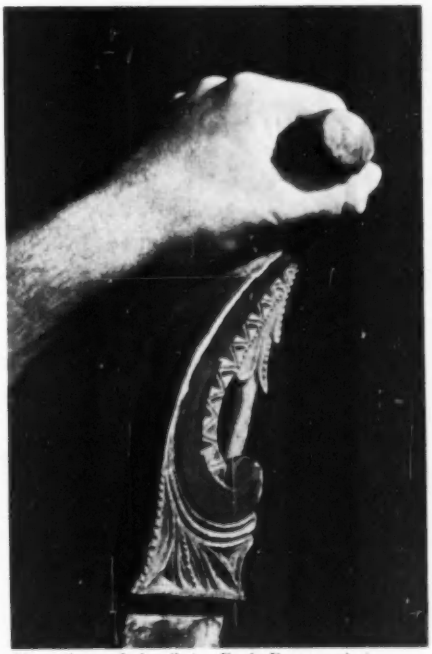
The Norwegian scythe handle, ABOVE RIGHT, is believed to be at least 200 years old. It was discovered two years ago in the loft of an old barn, in an isolated part of central Norway.

The sculptured form of the carved handgrip is exceptionally good. The traditional carved decoration is interestingly integrated with first class functional design. Directly above this handgrip the main scythe shaft widens, forming a gently curved section which fits comfortably against the arm.

From the point of view of design perhaps the most interesting thing about the carved handgrip is its functional shape; it is, in fact a beautiful example of applied ergonomics. While the illustration will give some indication of this skilful shaping, a true appreciation of this work can only be obtained by handling the scythe.

It is interesting, considering the age of these designs, to see how favourably it compares with recent work in the re-discovered field of ergonomics, particularly with handles designed for specialized hand tools.

Whether there were many scythe handles of this type at one period, or whether they were the unique and inspired work of one man is a debatable point.



Norwegian scythe handle (*see* Early Ergonomics).

The evidence available, however, does seem to indicate that the latter is more likely. The considerable time and skill that would be required to produce such work, possibly prevented these designs from becoming more widely accepted as standard tools, irrespective of their superiority over the types which superseded them.

Kenneth Howes
Kenilworth Hall
Kenilworth
Warwickshire

Improvements for safety

SIR: The improved design of a heavy goods vehicle cab, dealt with in *Designed for Safety* (DESIGN 139/42–7), seems capable of further improvement with regard to:

1 *Slope of windscreen:* the screen is roughly at right angles to the relative velocity of falling rain or snow when the vehicle is moving, and will thus collect more moisture than if vertical. Admittedly the relative effect may not be serious; the real disadvantage seems to be that the backward slope admits more sunshine and will make the cab like a greenhouse unless it has a visor like a club verandah.

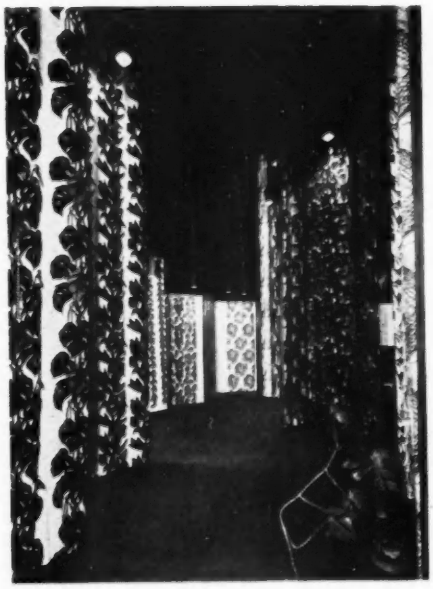
2 *Windscreen wiper pivoting point:* with the pivot above the screen, snow and ice are packed by the blade at the edge of the swept area and tend to run down over the screen, reducing vision and retarding the wiper blade. With the pivot below the screen, as has for some time been usual in passenger cars, the swept snow drains clear of the swept area. I realise, however, that the lower pivot may entail more complex mechanism to ensure wiping of the curved screen.

One final point is that your article refers rather

continued on page 89

Student textiles

These textile designs formed part of a recent exhibition of work by students at the Regional College of Art, Manchester. The exhibition, which was held at the Cotton Board Colour, Design and Style Centre in Manchester, was designed to illustrate 12 months' work by students at all stages of training within the school.



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Note that some of these figures are different from BS 1224:53 now obsolete.

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deprecatingly to laminated as opposed to toughened glass. Does laminated glass become dangerously opaque when partially shattered as does, I believe, the toughened variety?

To remedy the points I have mentioned might be expensive, but in the long run may be worthwhile, since vehicle design is more flexible than road design, the latter in many cases being irremediable.

I am a marine engineer and any comments on the above may well show that I am clearly out of my element on land.

G. H. CHAMBERS
University of Durham
King's College
Stephenson Building
Claremont Road
Newcastle-upon-Tyne 2

J. B. Davey replies: "The chief advantage of sloping a windscreen backwards is to move the tops of the windscreen pillars outwards in the field of view so that the driver has an uninterrupted view over a wide forward arc. Had the screen been vertical, the tops of the pillars would have been closer to the driver's normal line of sight and therefore more likely to mask objects with which the lorry might collide. In addition, the area through which the driver looks most of the time would have been six or seven inches further away, and it is a matter of common experience that in adverse conditions one wants to be as close to the screen as possible.

"Professor Chambers would like to see the windscreen wipers pivoted at the bottom of the windscreen. Although this layout has the advantage he mentions of moving rain, snow and ice downwards so that these do not re-enter the swept arc, there are disadvantages to be considered. The driver normally looks through the top part of the screen in the BMC cab, and indeed most others, and it is very difficult to arrange for much of this area to be wiped if the arcs have their centres at the bottom of the screen. In order to reach the part of the screen through which the driver is usually looking, the wiper arms have to be longer if they are pivoted at the bottom of the screen, and this increases the load on the wiper motor. Following upon the general increase in the size of lorry windscreens there is now a trend towards more powerful wiper motors.

"It is quite true that laminated glass does not crystallise when slightly damaged, as may toughened glass, but in a serious accident the danger of laceration is higher with laminated glass."

Design on the farm

SIR: I read with considerable interest the article *Improving farm buildings* (DESIGN 140/50 – 3), and it does strike me that, basically, the farm improvement scheme depends on the policy of the Ministry of Agriculture. The ministry insists on having three estimates of the cost of the work involved, and bases its grant on the lowest estimate. If it insists on that basis, it is obvious that design will not be very much considered.

Secondly, if the ministry is interested in design, then it should consider the new buildings in the light of the present ones on a given site. This, as far as I know, has never been done.

Thirdly, with the present tendency to consider work study and placement of buildings, I am afraid beauty recedes still further into the background.

Finally, the question of colour is usually omitted; but if design is to be considered then the colour scheme of the new buildings should be studied in the light of the colour scheme of the old ones. This, as far as I know, is never considered. IF there is to be improvement in design it is quite obvious that first of all one has to convince the ministry, and secondly one has to convince the farmers that it is worth while.

FRANK H. GARNER
Principal
Royal Agricultural College
Cirencester

Sense or sensibility?

SIR: May I proffer you a tiny pill encased in generous sugar coating? Your editorial policy has, I believe, been more influential than any other single factor in raising the status and the level of intelligence of design criticism. Hitherto, questions of design have been discussed on the sterile and inconclusive lines of 'You-may-think-this-is-good-but-I-think-it's-terrible' and 'I-know-more-about-it-than-you-do'. Such questions are now considered in your pages in terms of ergonomics, colour theory and consumer research: in brief, by an analysis of the problem and hence a reasoned assessment of the success or otherwise of the solution. Yet while I applaud this method, I must submit that it can be carried to excess.

The recent discussion over your change of type face for the setting of textual matter provides an example. For myself, I regret the substitution of Baskerville for Monotype Plantin. They are both excellent faces (although, as has been pointed out, Baskerville is a 'transitional' type; while the paper on which DESIGN is printed is anything but transitional). The decision is admittedly a close one, and in this as in other matters of book production, there is room among informed opinion for personal preferences. The attempt to settle such an issue by subjecting both faces to a legibility test surely verges on the ridiculous. If either face were demonstrably less legible it would not have been chosen anyway, and the controversy could not have arisen.

Some years ago there appeared in *The Penrose Annual* a scholarly analysis of the comparative legibility of certain type faces, undertaken, I believe, by a Dutchman. The faces selected for this experiment were so uniformly hideous that no practical use could be made of its conclusions. Design is largely a matter of sensibility; and while an informed opinion should be capable of rationalisation, it is surely a mistake to use rationalisation as a means of arriving at one's opinion. The scientists have not, after all, yet succeeded in reducing the human spirit to an encephalogramme.

NORBERT DUTTON
Notley Advertising Ltd
15, 17 and 25 Hill Street
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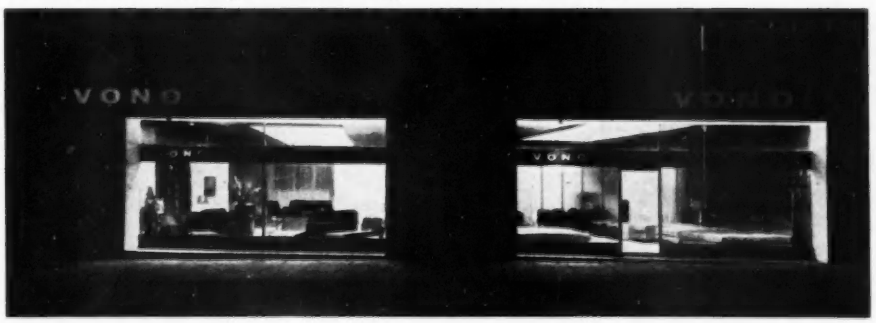
Showrooms in Manchester

Vono Ltd has recently modernised and enlarged its showrooms in Manchester. David Ogle Associates Ltd designed the new premises illustrated below, and the contractor was David Esdaile & Co Ltd.



BOOKS

Theory and design in the first machine age

Reyner Banham, The Architectural Press, £2 5s

Over the past few years the pages of *The Architectural Review* have been distinguished, from time to time, by articles on the Modern Movement in architecture from the pen of Reyner Banham, its then literary editor. These articles kept our tabs on his work in progress towards a major documentation of the formative years of the International Style in architecture. The field was wide open and Dr Banham has had a ball – his book makes available for the first time in English a great deal of information and textual quotation. But the historians are snapping so impatiently at the heels of the pioneers and at each others' that Dr Banham is already parrying, in certain chapters, rebuttals of his propositions. For this is no cold analysis; in spite of his finger-wagging admonition to Giedion on the dangers of plugging a line, Banham also has a theory. Oddly enough his theory is as uncontroversial as the substance of his book is polemical. The gist of his thesis is that 'modern architecture' is not functional – that buildings in the International Style are a symbolic fantasy, and pretty inadequate at that. The controversy lies less in the thesis than in the mechanism of his

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argument, which is to tie every possible movement and master back into Futurist thought, however tenuous the contact with the Futurist dream of the machine age.

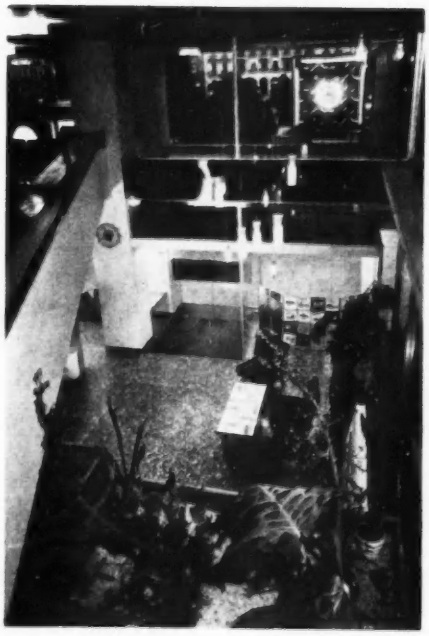
It would be presumptuous of me to attempt to discuss in detail the subject matter of this book. As much time would be needed to examine it thoroughly as Dr Banham himself has spent in finding out who said what and when. His research has been extensive and deep – a mind as encyclopaedic as his would be required to review it more than superficially. Having admitted this one feels free to say that any specialist on the movements he covers is likely to be infuriated beyond measure: as much by his acrobatic use of quotation as by the conclusions drawn from them – for Banham makes his authorities work very hard for Banham.

He manages the formidable task of organising his material and integrating his quotations into a continuously readable text with a skill that only a journalist of great ability could command, and however difficult a problem of translation he rarely leaves us monolingual readers baffled.

Unfortunately journalism colours his language, so that when we have submitted to Marinettian, Corbusian, Wrightian, Lippsian, Muthesian, Scheerbartian and even Dannunzian (in the manner of d'Annunzio), we are confounded by an "anonymous Lethabist", and are required to assess the merits of an "un-Lethabetic" statement and a "superficial Boccionism". A "Schinkelist" can produce the "Schinkelesque" when "Schinkelism" is abroad. *Mensch!* Good gimmicky shorthand, but dubious art historical terminology.

Airline office

Part of the interior of B E A's newly opened booking office in Athens; the interiors were designed by Patrick de Saulles.



A pity, too, that an important work on modern design theory is so badly designed. It was inevitable that many of the illustrations, surviving through several generations of reproduction, should be a little degraded – we are grateful for the exquisitely apt and rare collection – but there is no good reason for the incredibly casual setting and distribution of captions.

There is no need to exhort designers to purchase this book – its obvious merits and the wealth of vital material make it essential reading for students of the period. As for the dilettantes – having read it we are well placed in a ringside seat to enjoy the rich vituperation that such grand, rhetorical, big-man criticism of near history is bound to evoke.

RICHARD HAMILTON

Scuole

Giampiero Aloi, Hoepli Editore, Milan; Alec Tiranti Ltd, £4 1s

Another volume in the architectural series published by Hoepli of Milan, this is an illustrated survey of some 60 or 70 educational buildings, most of them completed in the last three years.

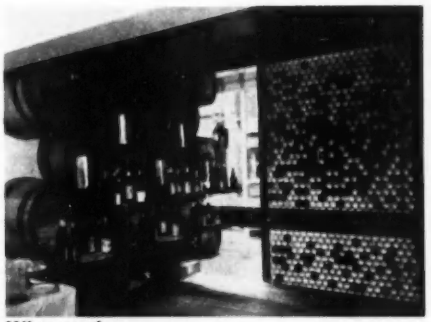
Gillo Dorfles in the introductory essay points out that scholastic architecture has a three-fold aspect: pedagogical, technical-constructional, and aesthetic, and warns that the last two only are dealt with in this book. There is a further important omission in that no reference is made to the social contexts from which the schools have emerged. Apart from the genius of individual architects, so much depends upon the quality of architectural patronage in the realisation of good school buildings. This is exemplified in our own country where the patronage and leadership of a few education authorities have largely been instrumental in raising the quality of our educational buildings to a point where we can claim a field of design at least equal to the best Continental and American work.

The buildings illustrated range from kindergartens to universities, mainly from Western Europe and the Americas. Each one is shown by means of photographs, plan drawings and a brief technical description in English and Italian. Some photographs are in colour and additional information, such as sectional elevations and working details, is given where this is of particular interest. No critical comment or comparisons are made by the author.

For readers of the book who are concerned with the building of new schools, the most serious omission is the lack of any reference to cost, even in the most general terms. One might also quarrel with the selection the author has made. A generous proportion, naturally, consists of Italian schools, but equally naturally one would like to see a larger representation of British examples. It is claimed that the best and most significant examples are included, and on the grounds of significance alone, one would have expected to see at least one of the Hertfordshire schools.

The book is well illustrated and produced but, I think, is best regarded as a useful and informative index of a great deal of good recent work. What is also needed is a deeper comparative study of post war schools with fuller information on, among other things, costs, building methods and the experiences of five or 10 years hard usage.

FRANK HEIGHT



Wine centre

A new Australian Wine Centre, designed by Martin Frishman, a young Australian architect, was opened in Soho recently. The display wall in the illustration is constructed from over 1,000 wine bottles.

Textile designs of Japan, Vol II

Japan Textile Color Design Centre, Alec Tiranti Ltd, £16

I should perhaps begin this review by saying that I have not had the opportunity of seeing the first volume in this series devoted to all forms of textile design in Japan. This was concerned with designs in free style, while the new one deals with geometric arrangements. A third is not yet published.

I have no very deep acquaintance with Japanese design, and on first sight this magnificently produced book seemed to me a little monotonous, lacking in variety and excitement of colour. How wrong I was, for the more the book is studied the more rewarding it becomes, and the amazing fecundity of the imaginative development of a theme is revealed. Most of the examples illustrated are variations on a theme in a minor key, subtle and endless, balanced and harmonious.

It is perhaps just this quality of exploitation of thematic possibilities which distinguishes the Japanese approach from design in the West, and it is a quality which our designers here might well consider developing. The results are not eye catching and do not contain what we would call an 'idea' – the presence of which in our textiles designs is a *sine qua non* for any sort of distinction. The value of this volume to students as a counterbalancing alternative (and probably the first) to our own approach – cannot, I think, be overstated. It has always been the problem of the designer to produce controlled results within limited means, and the potentiality of simple geometric shapes and carefully balanced relationships of muted colour has been explored with such pertinacity and poise, that similar elements may be used to produce designs of very different character and effect.

The Komon designs form a particularly fascinating study. The term means 'small fine patterns' and the designs involve the use of stencil resists of great delicacy; many of them, composed of small dots, give a *pointilliste* effect. They are obviously the result of great skill, experience and sensitivity. At the same

continued on page 93

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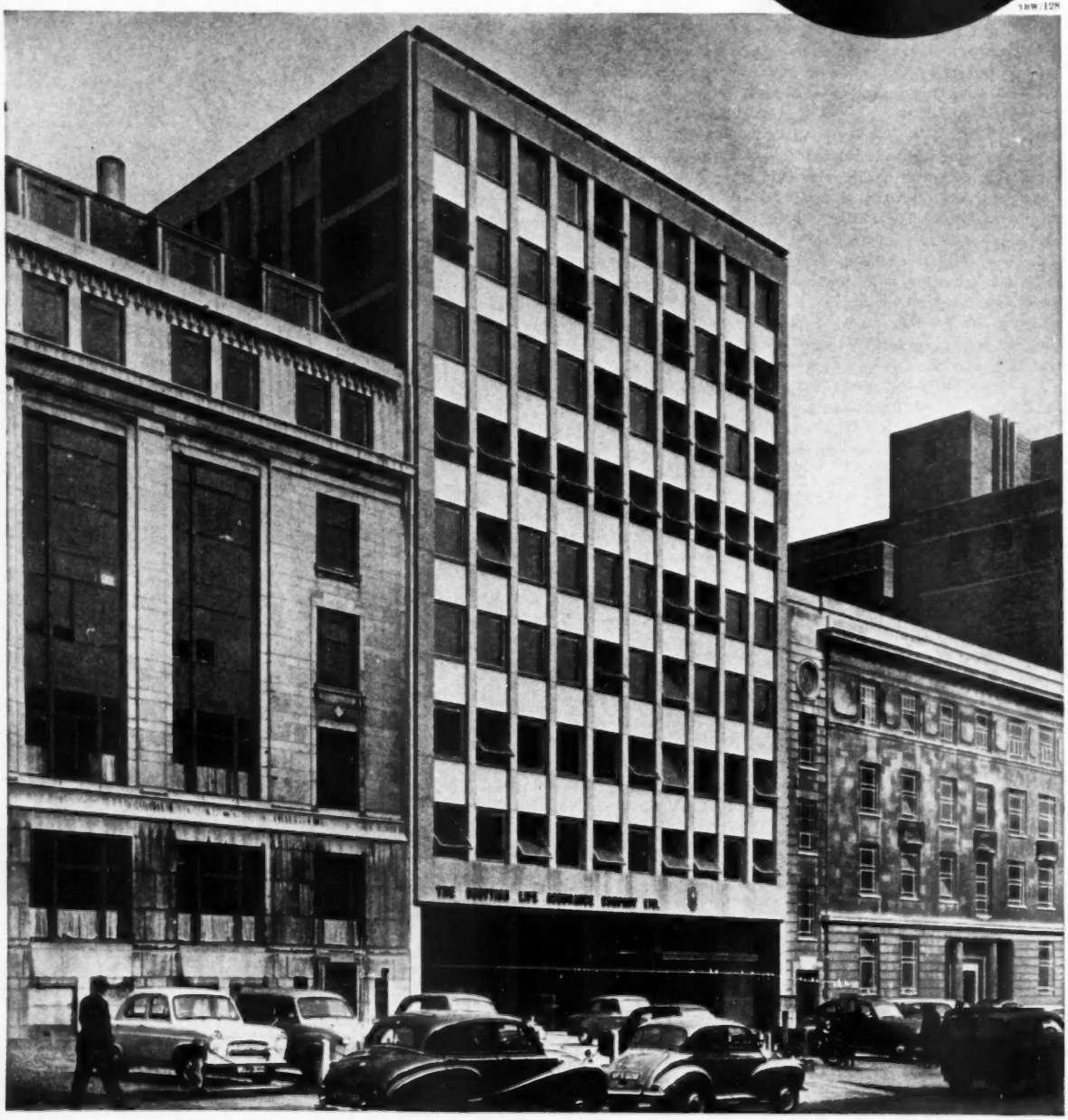


time they could, it seems to me, provide an inspiration to designers in the West.

It is perhaps just this constant combination of qualities of skill and sensitivity that make the book the valuable source of study it is, and urge me to recommend it, not only to textile designers, but to all who are concerned with subtlety and restraint in design.

AUDREY LEVY

International poster annual 1960

Editor Arthur Niggli, Alec Tiranti Ltd, £3

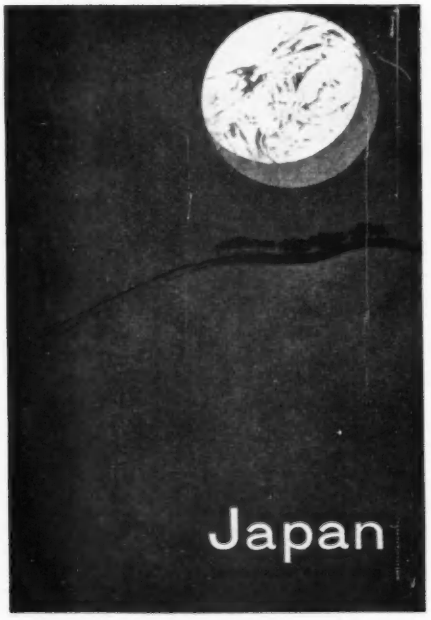
Five hundred posters, out of an initial selection of 2,000 have been assembled in this annual; they are classified by countries and cover every aspect of advertising with the good intention of doing justice to everybody.

The editor draws attention to the weakness of classification by country and observes that national characteristics play an increasingly minor role in poster design owing to a quantity of factors. These range from the presence of an international 'advertising agency style', to the predominance of values, trends and artistic personalities that reach well beyond the local influence.

This method of selection, however, still remains valid for countries like Poland or Japan, which are both well represented in the *Annual*. In the case of Poland, the peculiarities of a political situation that influences the arts, seem here dissolved in a multiplicity of graphic expressions whose intuitive roots run across the field of the experience of modern Western art.

The opposite could be said of Japan, where Western influence on mass communication media had until a few years ago the debasing effect of an almost mimetic identification. It is now possible to detect the traditional sharpness of formal expression and sense of space throughout a wide range of posters for a variety of consumer products. This has a double importance as, in the past, Japanese graphic art gifted European art with the notion of abstraction, while Japan had a period in which the Western influence predominated. It is therefore encouraging to discover now a synthesis in Japanese poster design between a surviving traditional geniality and most of the graphic experiences of the last half century.

Poster designed by Hiroshi Ohchi. (One of the illustrations in International Poster Annual 1960.)



Few of the other 24 countries illustrated in the *Annual* point so clearly to this theme. Switzerland is mostly represented by the work of abstract designers, sometimes referred to as 'concrete', who are very advanced in their approach to typography. The British section shows an impressive record of activity for 1959. Here again, though mass communication media are a levelling factor, British poster design reaches a standard and a style perceptibly bred out of local wit and graphic tradition.

The *International Poster Annual 1960* is printed in Switzerland; the quality of reproduction varies between excellent and good, but the index of advertising agencies, designers and printers could be improved by the addition of their addresses.

GERMANO FACETTI

Decorative art 50

Editor Terence Davis, Studio Books, £2 2s

Decorative Art, the Studio's year book, has been published now for 50 years. In this, as in previous issues, there is a broad photographic survey of interior design and the 'raw materials' for use by interior designers – fabrics, furniture, glass, pottery, etc.

As the world gets smaller, it is evident that national differences in interior design tend to disappear. I remember looking at previous issues of *Decorative Art* and it being very evident when I looked at a French or an American interior, that they were French or American. In this issue, however, a sameness of style, or should I say lack of style predominates. I wonder, are designers becoming too susceptible to illustrations, and do books like *Decorative Art* encourage such a susceptibility? This is a Jubilee issue and, as the editors point out, a suitable occasion for self-congratulation and for taking stock – but what an opportunity has been missed. Not for self-congratulation, but for taking stock.

From the files of 50 issues there must be a wealth of comparative illustrations of, say, chairs to put alongside the Danish-Bernadotte-Swedish teak and leather formula, or of flower-patterned wallpapers to compare with those illustrated. I understand that the editors consider 'reporting' is their function in such a publication. I can also appreciate that to pass comment on pottery, furniture, glass and textiles, house design and lighting fittings, would require a great deal of discrimination and knowledge.

In its reflection of modern decorative art, this issue is as excellent and comprehensive as previous issues, but I cannot help but feel that 50 years' experience would be well worth while putting into print. To see present day interior design against that of the last 50 years would be of great value. Perhaps it might be worth a special issue.

R. STENNETT-WILLSON

Coffee pot in sterling silver with palissander handle designed and made by Sigurd Persson of Sweden. (One of the illustrations in Decorative Art 50.)

Typographica 1

Editor Herbert Spencer, Lund Humphries, 12s 6d

The first issue of the new series of *Typographica* was published recently. The editor, Herbert Spencer, is probably the most respected of British typographers working in a contemporary idiom. Again, *Typographica* is the only serious publication on typography compared with the numerous journals for the printing industry generally. A high proportion of the circulation goes abroad, and therefore the book tends to be taken to represent informed British design opinion. It was a considerable disappointment therefore to find that this issue was filled with articles that are only of marginal interest to the typographer, and not of the highest calibre in themselves. Every page in *Typographica* should be a valuable vehicle to communicate ideas between typographers. On the whole, however, the magazine avoids what, to me, should be its function. Among all the international magazines there is not a single one that is devoted to the reproduction of international work of typographers and material of specialist interest. One can see in various other magazines general reviews of graphic design, articles on designers and illustrators, and there are two or three more devoted to photography.

The main article, *Britain's Royal Arms* by Charles Hasler is typical of this approach; the reader has the feeling that he has seen it before in *The Penrose Annual*, or in one of the many publications of the *Festival of Britain* era. A quarter of the magazine is devoted to this one item. By the time one has passed some adequate but not inspired Polish photographs and some drawings by Yosl Bergner more than half the editorial space has been used up. The most interesting visual article is *The Work of Franco Grignani*. Unfortunately, however, the text by Alan Bartram says very little that is not perfectly clear from the illustrations. There is a serious academic article on the history of numerals that is well written and interesting, perfectly worthy of inclusion. The photograms by Anne Hickmott "using paste letters and route shapes, and children's sweets" suffer from being included in the same issue as Grignani, as the cover suffers by comparison with the previous issue also by Grignani. The book review of Nicolette

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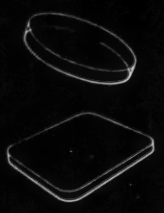

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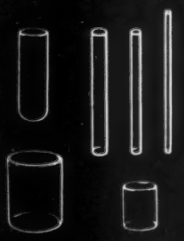

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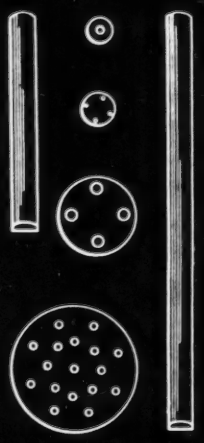

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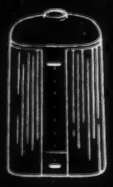

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Gray's *Farewell to Trajan* obviously should be included, but to spend three pages including illustrations on this one item is a waste when one can buy the book itself. COLIN FORBES

Interiors in colour

Roger Smithells, B.T. Batsford Ltd, £1 15s

Decoration and furnishing

John Wilson, B.T. Batsford Ltd, £3 3s

These two books, both published by Batsford, afford a complete contrast in treatment.

The first, *Interiors in Colour*, is a 'glossy' with the minimum of text, but 130 colour plates of interiors. The book is aimed at the home decorator and sets out to be a short cut to his problems of choosing colour schemes. This is done by illustrating existing schemes which have only to be adapted and success will be his. Even if it were as easy as this, the success or failure of such a book depends on the choice of illustrations. Unfortunately in this case a few interesting interiors are swamped by many indifferent ones which appear to have been culled from different manufacturers. Most of the schemes illustrated are complete with their commercial credits for so-and-so's floor tiles, wallpapers or paints. The whole effect is therefore that of an advertising catalogue rather than a book discussing the very real problems of colour in interior design.

Decoration and Furnishing, by John Wilson, is a complete contrast. It aims to be a comprehensive and practical 'bible' for present and prospective members of the decorating and furnishing trades. In this it succeeds admirably, with over 250 pages of close-packed information. In an encyclopedic fashion, the author tackles colour, paint, wallpaper, wall and ceiling materials, glass, floors, furniture, textiles and artificial lighting using clear diagrams, useful tables and well-chosen photographs.

The main weakness of the book is that it is not always clear if it is aimed at the craftsman or the designer. Thus the final chapter about the practice and procedure of being a free-lance designer seems to have little place in a book which does not really attempt to deal with designing as such.

However, there is no doubt that designers of all sorts, as well as those in the decorative trades, will find this book of value as a work of reference in a field where the 'handy hints' approach has reigned triumphant for too long. ANTHONY GOSS

Proceedings of the engineering materials and design conference

Heywood & Co Ltd, £2 2s

The recent *Engineering Materials and Design* conference (DESIGN 139/59), the first of its kind, will, we hope, not be the last. It was intended to promote the cross-fertilization of ideas by appealing to all sides of engineering industry, and attendance at the conference showed that the sponsor, *Engineering Materials and Design* magazine, had succeeded in this aim.

A complete report of the conference has now been published providing useful reference to developments in materials and engineering components.

While some of the material and component papers are clearly intended for the specialist, they are fortunately devoid of unexplained jargon; and if a few papers do not interest the designer in engineering, the papers on design should be read by all.

There is plenty of food for thought in these, particularly in Jacob Shapiro's survey of engineering design in Britain, Germany and Russia. Standardisation, safety and the place of industrial design in engineering are also covered. There hardly seems much point in racing ahead technologically with new materials and processes if design thinking lags behind. Those who study the papers dealing with design problems may feel that our design methods might be better improved not so much by cross-fertilization as by re-seeding. W. H. MAYALL

Impact of design

Clive Carney, Lawson Press Pty Ltd, Sydney

This book is a photographic survey of an international selection of office interiors, department stores and showrooms, and restaurants and bars, etc.

Clive Carney, who is one of Australia's leading interior designers, collected the material during a 40,000 mile trip which covered the United States, Britain, Europe and the Far East. This exhaustive tour must have created many problems when it came to the selection of suitable interiors to illustrate. It is of course, inevitable that many of the examples shown should come from the studios of names like Saarinen, Knoll and Raymond Loewy (who also wrote a pertinent introduction to the section of a store and showroom design). But it also shows discernment that the work of young and comparatively unknown designers is also illustrated – including Britain's Peter Miller, Kenneth Gibson, Clive Hunt and Edwin Meayers.

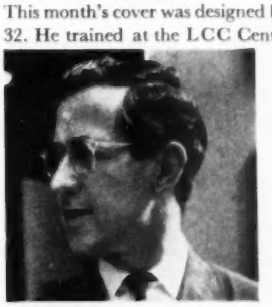
The layout of the book is clear and uncluttered and the captions contain the basic minimum of information. The book would have been more stimulating, however, had there been some illustrations in colour. It is clear from the captions that in America the interior designer works closely with the architect; this has resulted in the achievement of a remarkable harmony in the schemes, and it is one American influence that should be encouraged in the southern hemisphere. D. R. ERLAM-TAYLOR

Addendum

DESIGN 140/67 The showhouse at Pagham was designed by Mirjam Earling.

This month's cover

This month's cover was designed by Geoffrey White, 32. He trained at the LCC Central School of Arts and Crafts, and subsequently worked in CWS publicity department, and for two advertising agencies. At present he is a designer/typographer at the Central Office of Information.



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Brian Asquith, ARCA; Eric Ayers, ARCA, MSIA; Gerald Benney, DESRCA; Professor Misha Black, OBE, RDI, FPSIA, MINSERA; Paul Boissevain, DIPARCH, MSIA; Stefan Buzas, ARIBA, FSIA; Joseph Catt, LSIA; Sir Hugh Casson, RDI, MA, FRIBA, FSIA; John D. Clegg; David Collins ARCA, MSIA; Aidron Duckworth, DESRCA; Doreen Dyall, DESRCA; Mirjam Earling; H. L. A. Frost; James Gardner, CBE, RDI, FSIA; Kenneth Gibson; Leslie Gooday, ARIBA, FSIA; Gordon Grant Riach; Tom Hancock; Alec Heath, FSIA; Henrion Design Associates; Alan Irvine, ARIBA, DESRCA; George Keen; A. B. Kirkbride, BA; J. Laurent Giles; Audrey Levy, DESRCA, FSIA; Tom Lupton, MA, MSIA; Eric Marshall, FSIA; David Mellor, DESRCA; John Morton, ARIBA, MSIA; David Ogle Associates; Ralph Ormiston; John & Sylvia Reid, A/ARIBA, DIPARCH, F/FSIA; Patrick de Saulles; Claus Seligmann, DIPARCH, ARIBA, MSIA; Anthony Snow; Sir Basil Spence & Partners; R. Stennett-Willson, MSIA; Audrey Tanner, ARCA; John Toovey; Neville Ward, BARCH, ARIBA, FSIA; Geoffrey White (cover); R. L. Williams.

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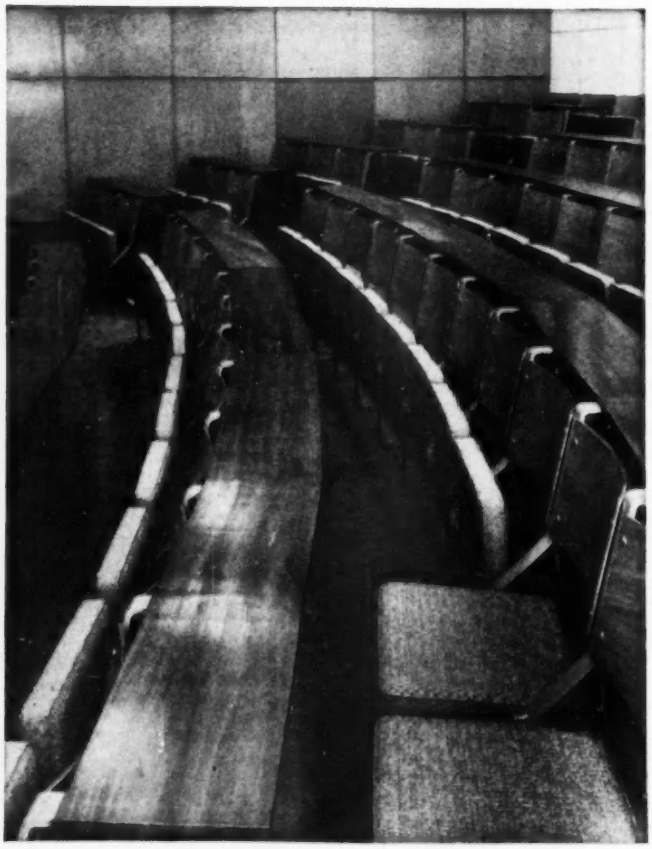
Tube Investments Ltd, The Adelphi, WC2
Ultra Radio & Television Ltd, Television House, Eastcote, Ruislip, Middx
Vono Ltd, Tipton, Staffs

'Spring in the Parks', a poster designed for London Transport by H. Stevens. It is one of the series of full colour prints of famous London Transport posters, which includes the work of Edward Bawden, R.A., John Minton, E. McKnight Kauffer, and many others. The average size of the prints is 6" x 5". They can be obtained, price 1s. each (postage 3d.) from the Publicity Officer, London Transport, Griffith House, 280 Marylebone Road, London, N.W.1.



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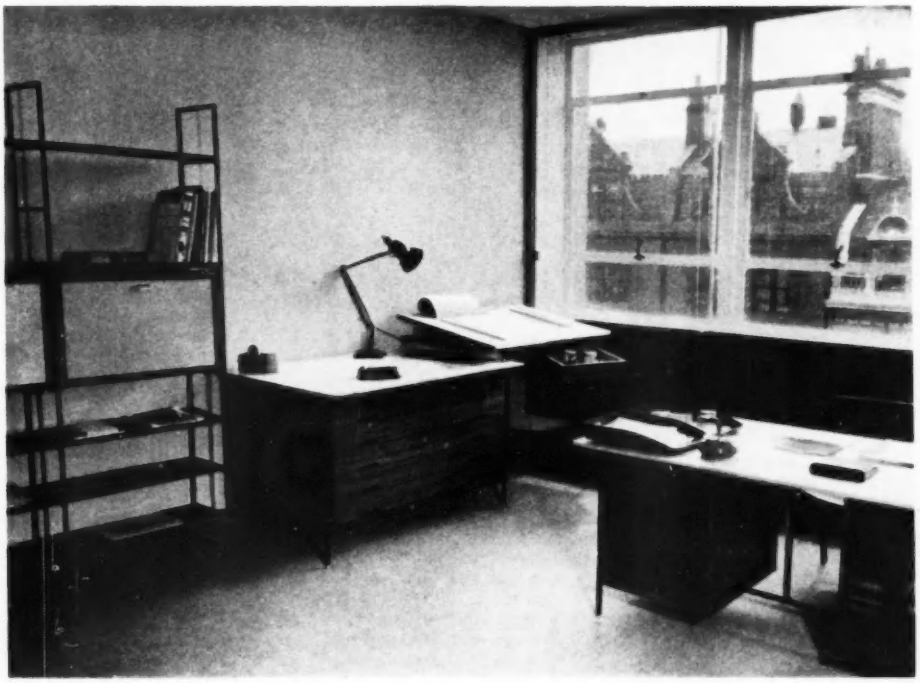

A corner of the Art Director's studio office of Messrs. Rothmans of Pall Mall. Illustrated are the Magpie Plan Chest, drafting stand and swivel storage tray. The Magpie double pedestal desk and Ladder Storage Display Unit are also seen here.

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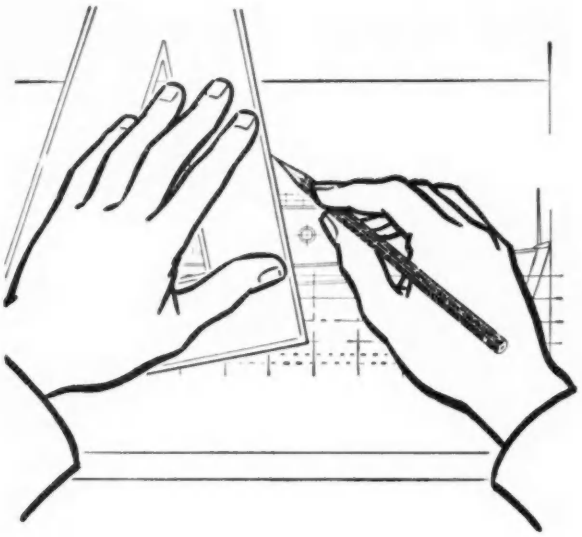

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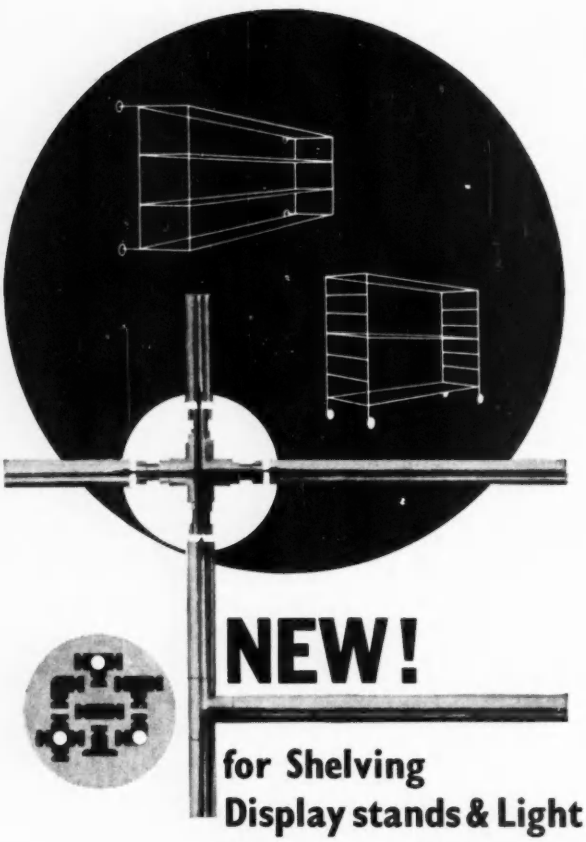

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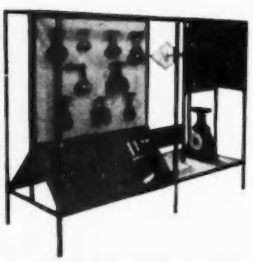

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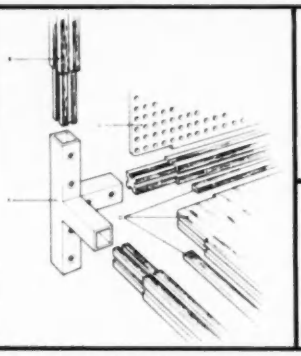

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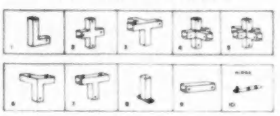

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City of Birmingham Education Committee
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Principal: Meredith W. Hawes, ARCA, ARWS, NRD
School of Furniture. Applications are invited for the following full-time appointments from 1st September, 1960: Grade 'B' Assistant Teacher of Cabinet Making. Candidates must be first class craftsmen with good industrial experience and be qualified to teach all aspects of their respective crafts. Salary in accordance with the Burnham Scale for teachers in Establishments of Further Education: Grade 'B' (Man) £700 × £27 10s. to £1,150 p.a. (Woman) £630 × £22 + final inc. of £26 to £920 p.a. plus equal pay increments. In fixing the commencing salary for Grade 'B' posts up to twelve increments may be allowed initially for approved industrial experience. Forms of application and further particulars may be obtained from the Principal, College of Art & Crafts, Margaret Street, Birmingham, 3. (s.a.e.) Closing date: 21st October, 1960. E. L. Russell, Chief Education Officer.

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DESIGN RESEARCH UNIT requires young administrative officer to co-ordinate the work of its print, packaging and product design studio; to be able to draw upon the resources of outside design services and to

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advertisements continued from page 103

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PRODUCT DESIGNER, MSIA, seeks senior or executive position. Seven years experience as Senior Staff Designer in the Plastics Industry designing domestic, nursery and industrial products. Box 461, Design, 28 Haymarket, London sw1.

Commissions and contracts wanted

TYPOGRAPHIC DESIGNER of contemporary advertisements, booklets, stationery, surface packaging and special occasion printed matter. Over twelve years experience, now freelancing. Kenneth Boyce Baker, MSTD, 2 Wyke House, 11 Castlebar Hill, London w5.

A DESIGN ORGANISATION with important business especially in showrooms, interiors and exhibitions of a major type is prepared to consider making available its unique organisation to a designer of reputation and ability. The designer in mind is probably in the position where an association of this nature is now essential if he is to achieve the necessary freedom to pursue his design activities and if he is to handle his growing number of commissions economically and efficiently. The company is shortly moving into new offices now being built in the Holborn area where it is setting up an already complete and efficient organisation in exceptionally well planned accommodation. The organisation has a first class reputation in the design field which embraces all forms of industrial design. It is envisaged that the designer selected would add his identity to the company of which he would immediately become a director. All replies will be treated completely confidentially by the Managing Director and all letters will be acknowledged. Apply to Box 458, Design, 28 Haymarket, London sw1.

DESIGN ASSOCIATES. This new design group provides a complete service, from initial design to final execution, for interiors, furniture, lighting and industrial products. Showroom, studio and workshop at 19a Shrewsbury Road, w2. CUN 9182.

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PHYSICIST DESIGNER – experienced instrumentation and display, seeks mechanical, styling and lighting commissions within striking distance of Leicester. Box 464, Design, 28 Haymarket, London sw1.

Miscellaneous

SHOWROOM FACILITIES: Group of companies having superb trade showroom w1 would be interested in sharing with one further company who could benefit from and add to excellent contacts with architects, contract furnishers and public authorities. Highest design standards and references given and required. Rental to depend on arrangements and product, but we contemplate £750 – £1,000 to cover use of 1,000 sq ft of lit, heated and furnished showroom with 100 sq ft of private office space. Box 459, Design, 28 Haymarket, London sw1.

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FOR EXHIBITION STANDS and animated light displays, architectural and visual planning models, prototype design and development – consult: John Evans and Associates, East Gate House, Chenyne Walk, Northampton.

R. J. MAGNA MODELS offers to designers and industry, 15 years experience in the manufacture of accurate well finished prototypes and mock-ups in plastic, metal and wood. REN 2645.

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Shipping and packing

INTENDING EXHIBITORS at European Fairs should contact Davies Turner & Co Ltd, 4 Lower Belgrave Street, London sw1, SLOANE 3455, for details of DIRECT ROAD SERVICE.

Design development

AN IDEA is one thing – developing it to the production stage is quite another! Our experience in all production techniques in metals and plastics, supported by our design and prototype facilities, enables us to offer a first class service in this field. R. J. Emery and Company, Studio Two, Brownfields, Welwyn Garden City, Herts. Tel Welwyn Garden 6500 and 4720.

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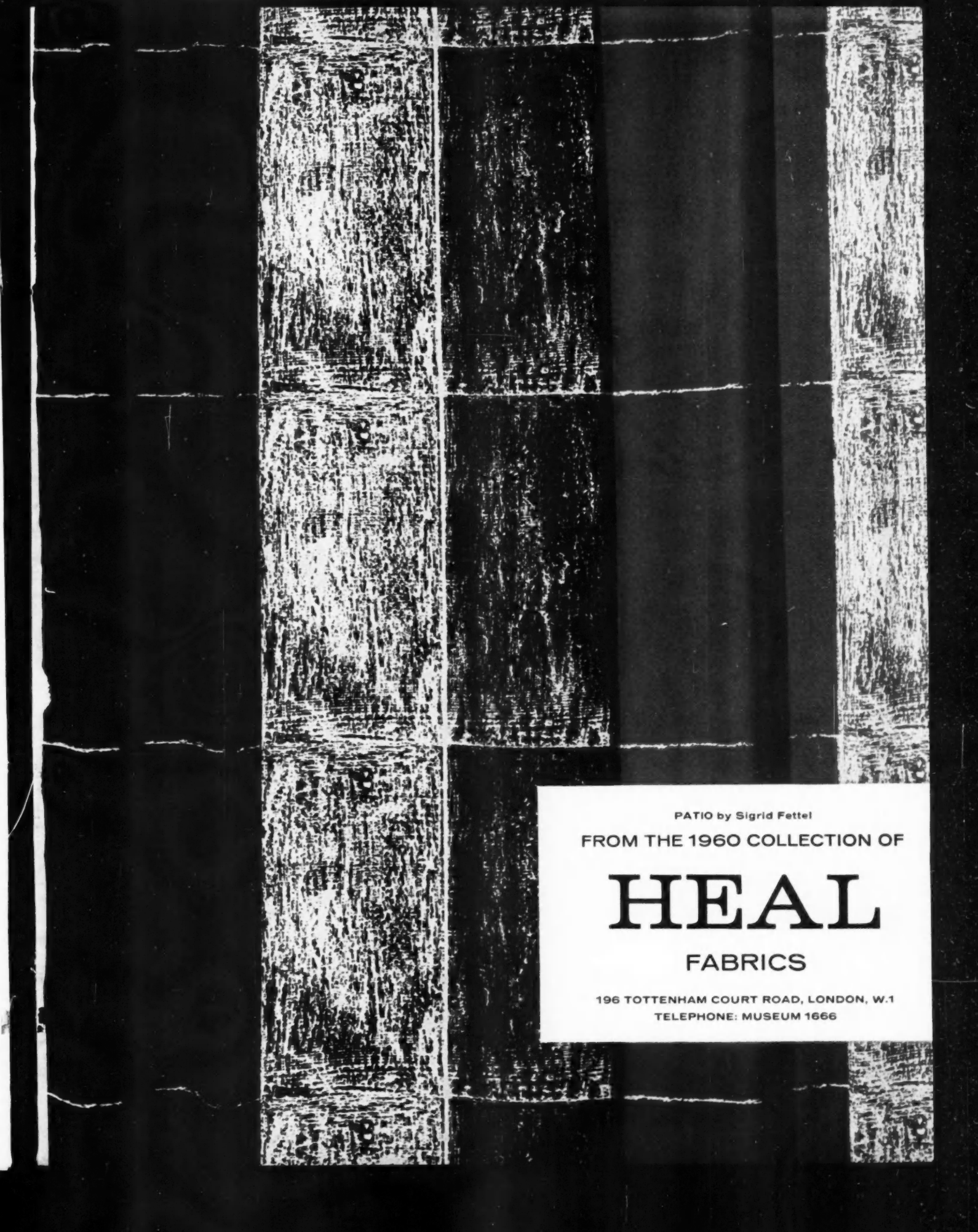

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